The North West *A regional study*

Fig. 1. Economic planning regions of Great Britain
Regions for economic planning purposes have, at time of going to press, been defined for all areas of Great Britain except the South East (See Appendix, Table 1)

Department of Economic Affairs

The North West

A regional study

London: Her Majesty's Stationery Office: 1965

Preface

This report on the North West Economic Planning Region summarises the results of a study made by a group of officials from Government departments concerned with regional planning, with the object of providing a basis on which future plans for the region can be drawn up. It consists of a general survey and analysis of information at present available about the region; an appraisal of its principal characteristics and problems; some suggestions about the way in which the more urgent needs might be met; and proposals for further research.

In the course of the study the group received a great deal of help from people in the region who reflect a wide range of local interest and experience—in industry and commerce, in universities, in voluntary organisations and in local government. The local planning authorities in particular provided valuable information, estimates and general views about the problems in their areas. The contents of the report are, however, the responsibility of the group alone.

The report has been referred to the North West Economic Planning Council and is being published so as to enable others concerned with the problems of regional planning to express their views on the findings contained in it. These should be communicated, in writing, to the Secretary, North West Economic Planning Board, Sunley Building, Piccadilly Plaza, Manchester, 1.

In referring the report to the regional Economic Planning Council, the Government have made it clear that they are not in any way committed by the study group's findings, and that any proposals for action which may be made will have to be considered in the light of the National Economic Plan and of programmes and policies for the country as a whole.

DEPARTMENT OF ECONOMIC AFFAIRS 1965

Contents

TABLES INCLUDED IN THE TEXT

ILLUSTRATIONS

The maps and diagrams in this study have been prepared by the Ministry of Housing and Local Government

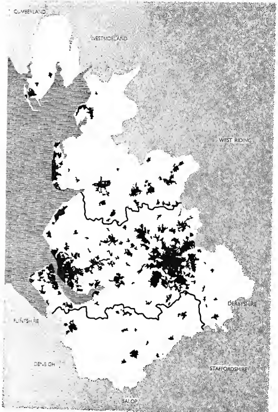

Fig. 2. The main built-up areas of the North West 1958

The map shows the extent of built-up areas at the latest date for which information on a uniform basis is readily available nationally. Open uses on the periphery of towns, e.g. hospitals, institutions and houses in large grounds and airfields, are not shown as built-up; within towns only the largest open spaces are shown. Boundaries of the three divisions of the North West (see Appendix, Table 2) are marked

1 The North West Region

THE REGION

The North West Economic Planning Region consists of the two counties of Lancashire and Cheshire and the small part of Derbyshire known as the High Peak District. No more than any other region is it a self-contained or precisely defined area: but most people would probably agree that it has as clear an identity as a region as any part of England. To some extent this is a result of geography: a narrow strip, nowhere much wider than seventy miles from east to west, and barely more than one hundred from north to south, it is broadly bounded by the Lake District mountains, the Pennines, the Irish Sea, and the Mersey and Dee estuaries.

2. More important to its character, the bulk of the region's 6½ million population is concentrated in comparatively small areas—the most important of which is the belt dominated by Manchester and Liverpool (referred to in this report as the "Mersey Division").[1] Although the North West covers only about 3½ per cent of the total land acreage of Great Britain, its population accounts for more than one in eight of the country as a whole. Nearly 5 million people live in the Mersey Division, which after London is the most densely populated area on this scale in the country and one of the greatest urban industrial complexes in the world. There are also further concentrations in the Ribble Valley, North East Lancashire, and the coastal resorts.

3. The result of this concentration is that much of the region still remains predominantly rural—particularly in South Cheshire, and in Lancashire north of Preston (including Furness). It is one of the region's advantages that none of its towns is very far from attractive countryside, and that it contains several areas of exceptional natural beauty, including parts of the Lake District and Peak District National Parks. Agriculture continues to be of importance—nearly three quarters of the land in the region is still used for farming; and the Lancashire and Cheshire plains lying north and south of the conurbations contain some of the finest agricultural land in the country. (See Figure 3.)

4. But despite its large acres of countryside, it is the industrial complex which makes the most lasting impression on all who come to the region, or live in it; and it is on the industrial complex that the past has left its most unpleasant scars. The tracts of derelict industrial land which blight many of the towns, the drab, huddled shopping centres, the ugly obtrusive factories and mills, above all the streets and streets of old, mean and dilapidated houses—these are constant reminders that the character of the region was forged during the heyday of the Industrial Revolution. Throughout the nineteenth century the economy of the North West boomed, its population grew at a tremendous pace and its towns doubled and redoubled their size. Manchester could then claim with some justice to be the centre of gravity of industrial Britain.

5. The First World War marked the end of this long period of buoyant self-confidence. In the inter-war years, the North West began to pay the penalty for its earlier distinction of being one of the areas where modern industrial civilisation first began to flourish. The industries on which its economy had been founded—coal, shipbuilding and, of course, cotton—met with growing international competition and could no longer hold their traditional markets; its ports suffered from the slackening in Britain's overseas trade; unemployment was a persistent problem and

[1] The area covered by the Mersey Division is shown in Figure 1 and defined in Table 3 of the Statistical Appendix.

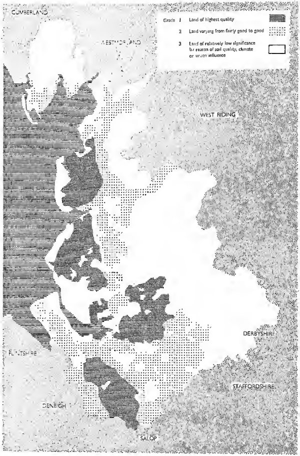

Fig. 3. Agricultural land quality
The classification of land in the Furness sub-region is based on the Land Utilisation Survey of Britain and in the remainder of the Region on an assessment by the Ministry of Agriculture, Fisheries and Food

population began to drift away. The consequences of this history have built up into a formidable task to be faced in the future—both in replacing outworn housing and the many other forms of social capital, and in revitalising the region's economy.

6. These handicaps are of course to a great extent shared by most of the older industrial areas of Britain. Nor should it be inferred that the people of the region are not tackling the job. Much has been done or will soon be done, the benefits of which are yet to come—for example, the M6 motorway, the railway electrification scheme, and plans for the renewal of Manchester and Liverpool and other towns. Much still remains to be done, so as to ensure that there is not only a strong and vigorous economic base, growing at a much faster rate than for many years, but also that the region's physical rehabilitation is pushed forward at much greater speed.

THE PATTERN OF THIS REPORT

7. This report starts by showing how the region's population stands in relation to the nation, and what shifts have taken place through migration and natural change. It attempts some guesses about future population. It then examines employment trends, some indicators of the region's prosperity, and possible employment prospects—since undoubtedly these are of the first importance to everyone, and are the most likely to influence decisions to live in the region or to go elsewhere.

8. Next, the report reviews the transport network and assesses the region's principal transport needs for the future—for transport is one of the most important elements of physical environment, particularly in determining attractiveness for industrial development and expansion.

9. An attempt is then made to assess total housing needs, the implication for house building rates, and the need for housing land, so as to see how far, if people have jobs to do, they can be equally sure that they will have fit homes in which to live. As part of this assessment, other aspects of physical environment are reviewed—the provision of green belts, availability of water, town centres in need of renewal, derelict land, and air pollution.

10. The report concludes with a summary of its own analysis; and finally with a chapter on the future, which sets out what seem to be the main implications of the analysis for action and decisions. Some urgent decisions which will have an important influence on the future development of the North West have already been made while this report has been in preparation. In particular, it has been announced that a large new town is to be created in the Leyland/Chorley area and that investigations are to be undertaken into the feasibility and likely cost of constructing barrages across the Solway Firth, Morecambe Bay and the Dee Estuary.

11. In the various sections of the report an attempt is made to show the extent to which the experience of different parts of the North West has varied from that of the region as a whole. These sub-regional variations are very striking and merit a fuller examination than has been possible at this stage. However, some detailed work has been done into the position and prospects of certain areas. A full analysis has been made of Merseyside's employment problem and this is to be published as an appendix to this report. The part of Lancashire north of the Ribble (including Furness) is included within the area being covered by an economic and social survey which has been commissioned from a research team in the Department of Economics at Lancaster University, under the supervision of Professor S. G. Sturney. The first results of this survey are expected to be available shortly and will be presented to the North West Economic Planning Council and Board. So too will the results of a preliminary factual study which has been made of the special problems of North East Lancashire.

12. This report is not intended to be a comprehensive survey or to give definitive answers to the North West's problems. Quite apart from the lack of a fuller analysis of sub-regional problems, there are many other aspects of the North West's position into which further research is needed. Some of these are outlined in the chapters which follow. But it is hoped that this report will provide a useful starting point for the work of the North West Economic Planning Council and of the North West Economic Planning Board.

Part Two

Population trends

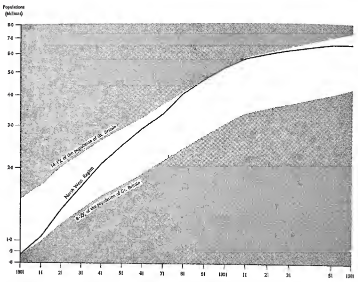

Fig. 4. Great Britain and the North West Region: population changes: 1801-1961
During the 160 years since the first Census in 1801 the proportion of the total population of Great Britain living in the North West has ranged between 8.2 per cent (in 1801) and 14.1 per cent (in 1901). In the diagram the population of the North West Region at each Census is plotted on a logarithmic scale; populations equivalent to 8.2 per cent and 14.1 per cent of the population of Great Britain as a whole at each census are also depicted. The diagram thus affords a comparison between rates of population growth in the North West and in Great Britain and shows how the region's share of the country's population has fluctuated

2 Past trends and present position

THE GENERAL PICTURE

1. In mid-1964, the population of the North West Region was a little over 6,660,000. This represented 12·7 per cent of the population of Great Britain as a whole—about one person in eight—and was the highest total for any region outside the South East.

2. The North West's share of the national population rose steadily in the nineteenth century, from 8 per cent in 1801 to 14 per cent in 1901. Since then, however, it has gradually declined. (See Figure 4.) In other words, although the number of people living in the North West has increased considerably since the end of the First World War, population growth in the country as a whole has been more rapid.

3. Both net outward migration from the region, and a rate of natural increase which has been below the national average, have contributed to the North West's slow population growth. (See Figure 5.) Outward migration has not been so heavy in recent years as it was in the 1920's, and seems to have been quite negligible since 1961. The region's rate of natural increase has been affected by death rates which have been a good deal higher than the average for England and

Table 1 **Civilian Population and Population Density 1964**

Area/Economic Planning Region	*Civilian Population 1964 (Thousands)*		*Area in acres (Thousands)*		*Gross population density Persons/acre*
	Nos.	*%*	*Nos.*	*%*	
Great Britain	52,319	100·0	56,805	100·0	0·9
Scotland	5,180	9·9	19,463	34·3	0·3
Wales	2,668	5·1	5,130	9·0	0·5
North West	6,662	12·7	1,973	3·5	3·4
S.E. Lancs. Conurbation	2,449	4·7	243	0·4	10·1
Merseyside Conurbation	1,385	2·6	96	0·2	14·4
South East	18,129	34·7	9,863	17·4	1·8
Greater London Conurbation	8,170	15·6	462	0·8	17·7
West Midlands	4,913	9·4	3,216	5·7	1·5
West Midland Conurbation	2,384	4·6	172	0·3	13·9
East Midlands	3,226	6·2	3,014	5·3	1·1
Yorkshire and Humberside	4,672	8·9	3,503	6·2	1·3
Northern	3,287	6·3	4,781	8·4	0·7
South West	3,584	6·8	5,862	10·3	0·6

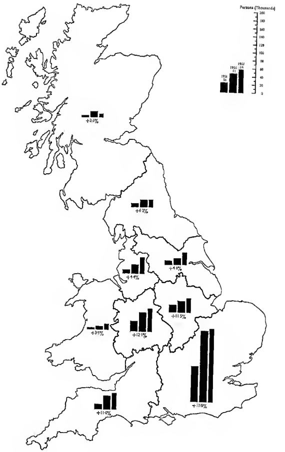

Fig. 5. Civilian population: total change: 1951-56, 1956-61, and 1961-64

The heights and widths of the columns are proportional to the mean annual total change and to the length of the period respectively. Thus, volume of change is represented by the area of the columns. Percentage growth over the period 1951-64 as a whole is given in figures. The total increase 1951-64 in Great Britain was 3,986,000 or 8.2 per cent (see Appendix, Tables 6-9)

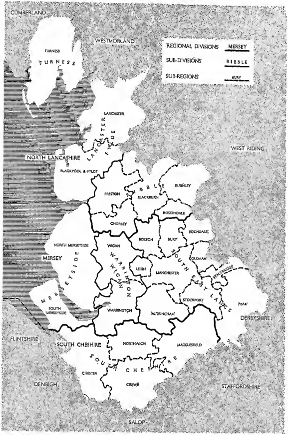

Fig. 6. Divisions, sub-divisions and sub-regions of the North West Region (see Appendix, Tables 2-5)

Wales, and which have more than offset the effects of birth rates slightly above the national level. (Migration is discussed in more detail in paragraphs 8-12; natural increase in paragraphs 13-16.)

4. Nevertheless, the North West remains one of the most densely populated areas of Great Britain. In 1964, the gross density of population in the North West was 3·4 persons per acre—by far the highest figure for any of the regions. By comparison, the figure for the South East was only 1·8 persons per acre and for the whole of Great Britain 0·9. Moreover, extensive areas of the North West are not built up and the density of population in those that are is very much higher even than the regional average.

5. For the purpose of analysing the past and present distribution of population within the region, the total area has been divided as shown in figure 6. The three main units are the North Lancashire, Mersey and South Cheshire divisions. These have been broken down into sub-divisions and sub-regions, the basic units of which are local authority areas. The same groupings of local authority areas have also been used in later chapters for the purpose of making population projections and calculating housing needs.

6. The population of the North West is in fact heavily concentrated in the Mersey division, which includes the South East Lancashire and Merseyside conurbations. In 1964, nearly 5 million people (about three-quarters of the region's population) were living in this area. Another $1\frac{1}{4}$ millions lived in the North Lancashire division, while only about 400,000 lived in the South Cheshire division.

7. Within the region, there has been a clear, but gradual shift in population patterns going on in recent years. Population has been declining in the older industrial towns on the Pennine slopes to the north and east of Manchester and in the centre of the conurbation itself. On the other hand the areas of most rapid population growth have been the southern fringes of both conurbations, the coastal towns of the Fylde and certain urban areas on the main north-south communications route now followed by the M6 motorway.

MIGRATION

8. In common with Scotland, Wales and other northern regions of England, the North West has experienced a net loss of population as a result of migration virtually throughout the whole of the period since the end of the First World War. However, the rate of net migration away from the North West has generally been lower than for any of the other "exporting" regions.

9. Outward migration from the North West was heaviest in the 1920's, but was substantially reduced during the 1930's. Meaningful figures cannot be given for the war, and immediate post-war, years, but those for the early 1950's show outward migration continuing, at a higher rate

Table 2 **Mean Annual Migration in Great Britain**

Standard Region	1921/31	1931/39	1951/61	1961/64
	(*% of total population*)			
Great Britain	−0·13	+0·14	+0·01	+0·15
Scotland	−0·80	−0·06	−0·55	−0·67
England and Wales	−0·04	+0·16	+0·07	+0·24
ENGLAND AND WALES:				
Northern	−0·78	−0·61	−0·24	−0·16
East and West Ridings	−0·13	−0·13	−0·25	−0·01
North West	−0·26	−0·12	−0·19	—
Wales	−0·97	−0·88	−0·18	+0·07
North Midland	−0·04	+0·14	+0·16	+0·35
West Midland	−0·19	+0·34	+0·11	+0·31
South East	+0·46	+0·66	+0·28	+0·35
South West	+0·01	+0·19	+0·29	+0·67

NOTE:

Corresponding data for all economic planning regions is not available for the periods 1921-1939.
For periods after 1951 see Table 10 in the Statistical Appendix.

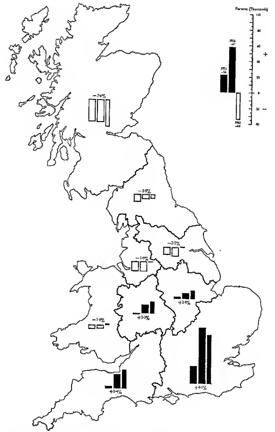

Fig. 7. Civilian population: estimated net migration: 1951-56, 1956-61 and 1961-64

The heights and widths of the columns are proportional to the mean annual net gain or loss by migration and to the length of the period respectively. Thus, volume of net migration is represented by the area of the columns. Percentage change over the period 1951-64 as a whole is given in figures. The total net migration 1951-64 for Great Britain produced a gain of 268,000 or 0.6 per cent (see Appendix, Tables 6-9)

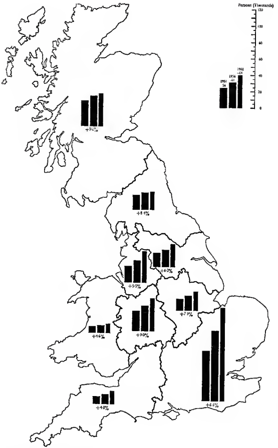

Fig. 8. Civilian population: natural increase: 1951-56, 1956-61 and 1961-64

The heights and widths of the columns are proportional to the mean annual natural increase and to the length of the period respectively. Thus, volume of natural increase is represented by the area of the columns. Percentage growth over the period 1951-64 as a whole is given in figures. The total natural increase 1951-64 in Great Britain was 3,307,000 or 6.8 per cent (see Appendix, Tables 6-9)

than in the 1930's although not so high as in the 1920's. Towards the end of the 1950's net outward migration appears to have declined to a rate similar to that in the 1930's. The latest figures suggest that migration from the region has virtually ceased.

10. Net migration is known to be the product of very much larger gross movements of population into and away from the region, but little is at present known about the exact size and composition of these gross movements. However, something can be learnt from the figures of inter-regional migration of employees which the Ministry of Labour derive from their annual one per cent sample of National Insurance cards.[1]

11. Between 1951 and 1962 there was a net loss of 45,000 employees from the North West, which was the result of just over 650,000 workers moving into the region and just under 700,000 moving out. Gross movements have tended to increase since 1957, but the annual net loss from the region has varied very little and over this more recent period has averaged only 0·15 per cent of the region's total employees. It appears that over the ten years 1952-62 there was a continuous net loss of male employees to South-East England averaging just short of 4,000 each year while losses to the South West, the West Midlands and the East and West Ridings were relatively insignificant. On the other hand, there seems to have been an average net gain of about 1,200 male workers from Scotland annually and small net gains from the Northern Region and Wales.

12. Some of the effects of past migration on the composition of the region's population are revealed by an analysis of the statistics of birth-place obtained from the 1951 and 1961 censuses. People born outside England and Wales make up a much smaller proportion of the population in the North West than in the country as a whole.[2] The proportion born in the rest of the British Isles, including the Irish Republic, is roughly the same as the average for England and Wales, but there are considerably fewer immigrants from the Commonwealth and foreign countries.

NATURAL INCREASE

13. The rate of natural increase in population in the North West has been consistently below the average in England and Wales since the end of the First World War. (See Figure 8.) This has mainly been due to relatively high death rates which have outweighed the effects of birth rates only slightly above the average for England and Wales. Between 1951 and 1962, the crude birth rate[3] in the North West averaged 16·7 per thousand population or 3 per cent above the average for England and Wales. Over the same period, the crude death rate averaged 12·8 per thousand—10 per cent above the comparable figure for England and Wales.

14. This high death rate cannot be explained solely by differences in age structure between the population in the North West and that in England and Wales. The standardized death rate

Table 3 **Popnlation Changes—1921-1964**

Period	*Total Increase* No.	*Total Increase* %	*Natural Change* No.	*Natural Change* %	*Estimated Gain from Armed Forces*	*Balance of Migration* No.	*Balance of Migration* %	*Thousands Mean Annual Migration*
1921-31 . . .	126	2·1	282	4·7	—	−156	−2·6	−15·6
1931-39 . . .	40	0·6	99	1·6	—	− 59	−1·0	− 7·4
1951-56 . . .	51	0·8	101	1·6	10	− 60	−0·9	−12·0
1956-61 . . .	110	1·7	134	2·1	37	− 60	−0·9	−12·1
1961-64 . . .	120	1·8	114	1·7	6·5	—	—	—

[1] These figures are shown in detail in Tables 35 and 36 of the Statistical Appendix.

[2] See Table 17 of the Statistical Appendix.

[3] The crude birth rate is the number of births per annum in relation to the total size of home population. The standardized birth rate is the crude rate adjusted to take account of the age-sex-marital structure of the population. The standardized death rate is a similarly adjusted version of the crude death rate.

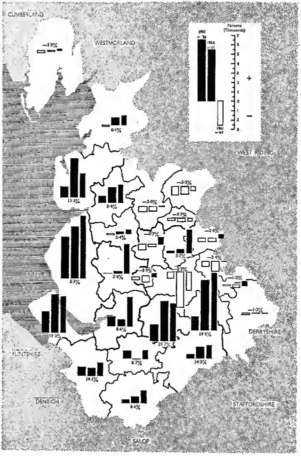

Fig. 9. Civilian population: total change: 1951-56, 1956-61 and 1961-64

The heights and widths of the columns are proportional to the mean annual total change and to the length of the period respectively. Thus, volume of change is represented by the area of the columns. Percentage growth over the period 1951-64 as a whole is given in figures. The total increase 1951-64 in the North West was 282,000 or 4.4 per cent (see Appendix, Tables 11-14)

in 1951-62 for the North West was 13·7 per thousand—even further from the national average. The main causes of death for which standardized death rates are particularly high in the North West (bronchitis, certain types of cancer, influenza, and heart diseases) are also causes for which death rates are high in conurbations and large cities generally. This suggests that the main reason for the region's high death rates is simply that a high proportion of its population lives in urban areas; but poor housing conditions, serious atmospheric pollution and the cold and wet climate of some of the hilly areas probably also play a part.

15. There is no sign of this regional differential in death rates becoming less marked over time; if anything it appeared to be growing larger in the later years of this period.

16. In the North West, as in England and Wales there has been a sharp rise in birth rates since the mid-1950's. In 1951-56, the crude birth rate for the region averaged 15·8 per thousand population; for 1957-62 the average was 17·6. Together with the fall in the rate of outward migration from the North West which occurred in the later 'fifties, this rise in birth rates has resulted in a substantially faster rate of population growth in the region than in any recent period. Between 1951 and 1956 the population of the North West increased by 0·8 per cent, between 1956 and 1961 by 1·7 per cent, and between 1961 and 1964 by 1·7 per cent, a rate which, if maintained, would amount to 3·0 per cent over a five-year period. But the rate of population growth in the North West is still slower than in England and Wales generally.[1]

AGE STRUCTURE

17. In recent years in Great Britain the population of working age has been growing more slowly than the total population. In the North West, however, natural increase and migration trends actually led to a fall between 1951 and 1961 in the total population of working age, (i.e. those between 15 and retiring age), and this section now represents a lower than average proportion of the population. Correspondingly, children under school-leaving age and old people above retirement age account for a slightly higher proportion of the region's population than they do nationally. The implications of this for the region's economy are discussed in Chapter 5.

SUB-REGIONAL VARIATIONS IN GROWTH AND DECLINE

18. Considerable shifts have been going on during the post-war period in the distribution of population within the region. These are illustrated in Figures 9, 10 and 11. In broad terms, population growth has been most rapid in the southern suburban areas of the South East Lancashire and Merseyside conurbations, in other urban areas such as Preston, Warrington and Wigan which lie on the route of the M6, and in the Fylde. Population decline has occurred in East and North East Lancashire, in the centre of the Manchester conurbation and in Furness.

19. The Altrincham, Stockport and Macclesfield sub-regions have shown the most marked increases in population, principally as a result of movements out of the Manchester conurbation. Between 1951 and 1964, the Stockport area gained 40,000 in population as a result of inward migration, Altrincham over 32,000 and Macclesfield 9,500. These areas' rates of natural increase were relatively low, but have more recently shown signs of increasing sharply since it is predominantly young married couples who have moved to them.

20. Similarly the Wirral and Chester areas have gained population as a result of migration, mainly from North Merseyside, but in their case substantial natural increase has also contributed to their rapid rate of growth. The North Merseyside sub-region itself showed substantial population growth, despite considerable losses from net migration, as a result of its extremely high rate of natural increase.[2] In the Warrington, Wigan and Chorley areas there was also moderate population growth as a result of natural increase outweighing migration losses.

21. The Fylde, Lancaster and Preston sub-regions all gained population as a result of

[1] Between 1951 and 1956 the population of England and Wales increased by 1·9 per cent, between 1956 and 1961 by 3·6 per cent, and between 1961 and 1964 by 2·6 per cent.

[2] In 1960, 1961 and 1962 the standardized birth rate in the Merseyside conurbation was respectively 14, 15 and 11 per cent above the comparable figure for England and Wales as a whole.

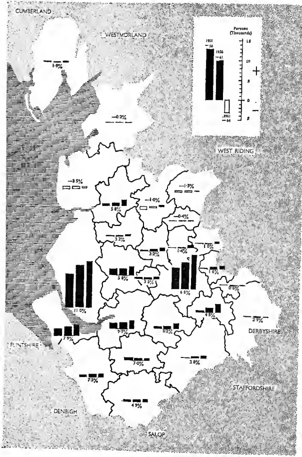

Fig. 10. Civilian population: natural change: 1951-56, 1956-61 and 1961-64

The heights and widths of the columns are proportional to the mean annual natural change and to the length of the period respectively. Thus, volume of natural change is represented by the area of the columns. Percentage change over the period 1951-64 as a whole is given in figures. The total natural increase 1951-64 in the North West was 349,000 or 5.5 per cent (see Appendix, Tables 11-14)

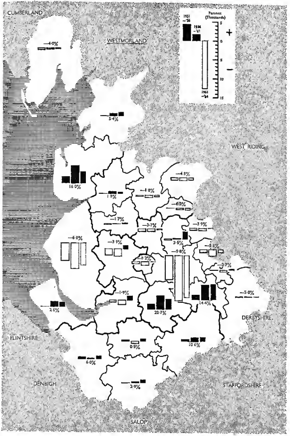

Fig. 11. Civilian population: estimated net migration: 1951-56, 1956-61 and 1961-64

The heights and widths of the columns are proportional to the mean annual net gain or loss by migration and to the length of the period respectively. Thus, volume of net migration is represented by the area of the columns. Percentage change over the period 1951-64 as a whole is given in figures. The total net migration 1951-64 for the North West produced a loss of 120,000 or 1.9 per cent (see Appendix, Tables 11-14)

migration and Preston also had a substantial rate of natural increase. However, the Fylde and, to a lesser extent, the Lancaster sub-region are favoured areas for retirement and have a very high proportion of old people in their populations; as a result they experienced natural *decrease* in the period 1951-64 (i.e. deaths exceeded births). Nevertheless, inward migration was sufficient to result in a rate of population growth well above the regional average.

22. Outward migration was the principal cause of the population losses which occurred in East and North East Lancashire. However, past migration losses have had such an effect on the age structure of the population in these areas that rates of natural increase were also very low. Indeed, in the Blackburn, Burnley and Rossendale sub-regions deaths exceeded births in this period, so that natural decrease reinforced the effects of migration loss.

3 The Region's future population

1. As a first step in estimating future population trends in the North West, it is useful to make projections based on certain assumptions about fertility and mortality rates and migration. However, projections of this kind cannot in themselves provide a considered forecast of the region's future population. Such a forecast can only be made in the light of likely social and economic trends both regionally and nationally, and of possible policy changes. Some of the relevant factors are reviewed in the succeeding chapters of this report.

HOW THE PROJECTIONS HAVE BEEN MADE

2. Projections of population change in the North West up to 1981 have been made on two alternative bases. The first set consists solely of projections of the natural increase of the existing population and takes no account of planned overspill movement or voluntary migration; in other words, they assume no net movement of population. The second set has been arrived at by adjusting the first to allow for planned overspill and voluntary migration. In calculating the extent of migration it has been assumed that trends and rates of movement experienced in the North West between 1956 and 1964 will also apply in the future. The adjustments for both planned and voluntary movement make allowance only for the population which will actually move, and not for any subsequent gains by natural increase in the population moving or reductions in natural increase in the areas losing population. While any final estimates of future population will certainly have to make allowance for the effect of migration on natural increase, such a refinement would be of little value at this stage.

3. The two sets of projections can be regarded as a pair of brackets which isolate a broad range of possibilities. For the region as a whole and for its divisions and sub-divisions they provide hypothetical upper and lower estimates of population growth. But because of their hypothetical character, it must not be assumed that they do in fact cover the full range of possibilities. It cannot for instance be taken for granted that past outward migrationary trends from the North West will not intensify, or alternatively be completely reversed.

4. The projections must therefore be treated with caution. It would be misleading to try to break them down below sub-divisional level, except for some of the more populous sub-regions, or to attempt to draw up any detailed balance sheet of maximum and minimum estimates of growth. Nor would it be appropriate at this stage to make projections going beyond 1981.

ASSESSMENT OF NATURAL INCREASE

5. The starting point for the local population and household projections used in the main body of this report is the projection of the population of England and Wales as a whole which was made by the Government Actuary in 1962. This suggested an increase of 5,576,000 in the national population between 1962 and 1981. Local projections were derived from the national figures on the assumption that the differentials in mortality and fertility prevailing at the time of the 1951 census would be maintained. At the same time, allowance was made for all migration occurring before 1954 and for heavy migration[1] occurring between 1954 and 1961.

[1] Greater than $\pm 0{\cdot}5$ per cent per annum.

6. The resulting projection of natural increase for the North West as a whole for the period 1962-1981 was 992,000. This has been adjusted to a figure of about 930,000 for the period 1964-1981 (or an increase of roughly 14 per cent of the region's population in 1964).

7. Since the main survey material was prepared for this report, however, fresh local population projections have been made which are based on the age and sex structure of population as revealed by the 1961 census and are derived from the Government Actuary's 1963 projection for the country as a whole. But these local projections do not sbow any significant general change from the earlier ones, and no related projections of bousehold formation have been made. While, therefore, some use has been made of the more recent local projections in the appendix to this report whicb deals with the special problems of Merseyside, the earlier projections have been retained generally, since it is to them that the latest available bousebold projections are related.

8. An additional reason for not making general use of the later set of local population projections is that the 1963 national projection, from which tbey are derived, has now in turn been superseded by the Government Actuary's 1964 projection which forecasts a substantially greater increase in the national population. The size of tbe increase forecast by 1981 is in fact some 20 per cent higher than that forecast by the Government Actuary in 1962. Although, therefore, no local projections bave yet been derived from this latest national projection, any projections eventually based on it will be likely to show increases of as high as 20 per cent over the local projections used in this report. In the period up to 1981 these increases would of course be confined to the 0-17 age groups.

9. Broadly speaking, therefore, the local projections of natural increase used in this report must be regarded as subject to two important limitations. Firstly, they are related to the age and sex structure of population as revealed by the 1951 census and secondly, they are derived from a national population projection whicb has now been superseded by one which suggests that a much larger increase in the national population is likely to occur before 1981.

10. They may well therefore prove to be underestimates. However, it must not be assumed from this that the corresponding household projections used in Chapter 9 for the purpose of estimating housing needs may similarly prove to be on the low side. Increases in the future average size of households could reduce the effects of an increased rate of population growth on the numbers of households requiring separate accommodation.

EFFECTS OF MIGRATION

11. In modifying these local projections of natural increase to create a second set of projections which allow for migration, account has been taken of both planned overspill and voluntary movement. Projections of planned overspill movement are based on schemes in progress or agreed by the end of 1964. In addition, account has been taken of the new town proposed for the Leyland/Chorley area and the proposal for the expansion of Warrington to take Manchester overspill. It is assumed that by 1981 a total of 98,000 people will have been accommodated in these areas, 52,500 in the Leyland/Chorley area and 45,500 in the Warrington area.[1]

12. Voluntary migration has been assessed on the basis of a continuation of-average rates of net inward and outward migration between 1956 and 1964. 1956 has been chosen as a base year because of the general increase since that time in the birth rate, the net immigration experienced since then by the country as a whole, and the fact that by 1956 increases in private enterprise house building rates had created a significantly greater freedom of movement than existed in the earlier post war years.

13. On the basis of these assumptions about migration, a net population increase by 1981 of some 794,000 has been calculated for the region as a whole (equivalent to a roughly 12 per cent increase over 1964). This would make the North West's total population in 1981 some 7,456,000.

THE BROAD PATTERN OF CHANGE WITHIN THE REGION

14. The distribution of future population increase within the region is likely to be very much in-

[1] Table 42 of the Statistical Appendix explains the basis of these assumptions in terms of dwellings.

Table 4 Estimated Home Population Changes 1964-1981

Area	*Mid-Year Population* 1964	*Natural Change* 1964-1981		*Mid-Year Population Projection Nat. Inc. only* 1981	*Planned Overspill* 1964-1981 (*agreed schemes*)[1]		*Voluntary Migration* 1964-1981 *Projection of Past Trends*		*Estimated Resultant Population* 1981[2]	*Total Change* 1964-1981	
		Nos.	%		*Nos.*	%	*Nos.*	%		*Nos.*	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
NORTH WEST REGION. . .	6,661,880	929,180	13·9	7,591,060	Nil	—	−135,100	− 2·0	7,455,960	+794,080	+11·9
NORTH LANCS. DIVISION . .	1,279,010	88,910	7·0	1,367,920	+52,500	+ 4·1	+ 60,180	+ 4·7	1,480,600	+201,590	+15·8
Furness Sub-Division . .	104,660	11,500	11·0	116,160	Nil	—	− 4,080	− 3·9	112,080	+ 7,420	+ 7·1
Lancaster-Fylde Sub-Division .	409,910	19,230	4·7	429,140	Nil	—	+ 81,770	+20·0	510,910	+101,000	+24·6
Ribble Sub-Division . .	764,440	58,180	7·6	822,620	+ 52,500	+ 6·9	− 17,510	− 2·3	857,610	+ 93,170	+12·2
MERSEY DIVISION . , .	4,981,490	788,900	15·8	5,770,390	− 71,050	− 1·4	−219,760	− 4·4	5,479,580	+498,090	+10·0
Merseyside Sub-Division .	1,696,820	389,480	23·0	2,086,300	−102,240	− 6·0	− 91,310	− 5·4	1,892,750	+195,930	+11·6
Warrington-Wigan Sub-Division	624,360	111,820	17·9	736,180	+189,040	+30·3	− 22,680	− 3·6	902,540	+278,180	+44·6
South East Lancs. Sub-Division	2,660,310	287,600	10·8	2,947,910	−157,850	− 5·9	−105,770	− 4·0	2,684,290	+ 23,980	+ 0·9
SOUTH CHESHIRE DIVISION . .	401,380	51,370	12·8	452,750	+ 18,550	+ 4·6	+ 24,480	+ 6·1	495,780	+ 94,400	+23 5

[1] The figures in this table, which cannot be regarded as correct below thousands, are presented in their unrounded form for convenience.

[2] No allowance has been made for subsequent natural change in the population which has moved: see Chapter 3, paragraph 2,

fluenced by overspill and migrationary movements. This is illustrated by Table 4

15. The projections based on natural increase alone show a very high rate of growth in the population of the Mersey division and in that of the Merseyside sub-division in particular. The increase on Merseyside is concentrated in the main in the North Merseyside sub-region, where the percentage increase is over 25 per cent, in contrast to 16 per cent in the South Merseyside sub-region, and 10.8 per cent in the South East Lancashire sub-division as a whole. Much smaller increases are shown for the Lancaster/Fylde and Ribble sub-divisions. The basic reason for the small increase in the former is the high proportion of retired people living there. The small increase in the Ribble sub-division is the result of the top heavy age structure of the population in North East Lancashire, where there has been persistent net outward migration of younger people. In general, it can be said that the broad effect of natural increase by itself would be to aggravate greatly the state of imbalance between the highly populated areas of the Mersey belt and the more sparsely populated areas to the North and South.

16. When, however, these projections are adjusted to take account of planned overspill and voluntary migration, the position is substantially altered. Although migration from the region as a whole is not very large, the broad effect of internal movements is to spread population growth more evenly between divisions and more evenly within the Mersey division itself. Particularly noteworthy is the 44·6 per cent net increase in the Wigan/Warrington sub-division. The only areas to suffer substantial net loss of population are the Rossendale, Burnley and Manchester sub-regions; the net loss in the last case is in the main the result of planned overspill movement.

CONCLUSIONS

17. The two basic sets of projections made—those ignoring migration and those taking account of it—provide a broad framework within which the economic and physical planning problems of the region can be considered. The value of such a framework is particularly obvious when considering the employment and overspill problems of the two main conurbations. The two sets of projections illustrate the varying scale of these problems depending on the assumptions made regarding net voluntary migration from the region.

18. In addition it is possible to draw some broad conclusions from the calculations made. The most important one is that even if net outward migration from the region as a whole continues unchecked, there is nevertheless likely to be a very substantial net growth of population by 1981, mainly within the Mersey division, and that the main impact of this growth in terms of employment and planning needs will be felt in the 1980's and 1990's.

19. Another important conclusion is that planned overspill schemes are likely to play a substantial part in re-distributing that growth, not only because of the large numbers of people likely to move, but also because overspill families tend to come from the younger and more fertile element in the population. Their movement has therefore the effect of boosting the rate of natural increase in the "importing" area and correspondingly depressing the rate within the "exporting" area.

20. Finally, the point must be emphasised that the projections of natural increase in the North West made in this Chapter must now be regarded as on the low side in the light of the Government Actuary's latest projection for England and Wales as a whole. Any upward revision of the natural increase projections would, of course, be reflected in a similar revision of the projections which make allowance for continuing migration.

Part Three

The economy of the Region

Fig. 12. **Ministry of Labour regions (as constituted in 1961)**
Employment statistics are not generally available for economic planning regions in England. Ministry of Labour regions, as constituted in 1961, are broadly equivalent to regions as used for the 1961 census

4 Employment trends

RECENT EMPLOYMENT TRENDS

In the recent past, the North West's population has been growing a good deal more slowly than that of Great Britain generally, while the region's population of working age has actually been declining. At the same time, employment growth in the North West has also been at a rate well below the national average. (See Figure 13.) Between 1953 and 1963, the number of employees at work in the region increased by only 51,000—or 1·8 per cent, compared with 9·1 per cent in Great Britain as a whole. This was the lowest percentage increase for any of the regions, apart from Scotland, and, as a result, the North West's share in the national total fell from 14 per cent in 1953 to 13 per cent in 1963.

2. The fact that this very slow increase in employment has occurred at a time when there has been a slight fall in the size of its population of working age has meant that the North West as a Whole has not suffered from the persistent higb unemployment and heavy outward migration wbich might otherwise have been expected. Nevertheless the rate of unemployment has remained fairly consistently above the national average rate (see Figure 14) and there has been a small, but continuing, net loss of employees as a result of migration[1]. And on Merseyside, where population growtb by natural increase has been well above not only the regional, but also the national, level, high unemployment rates and heavy outward migration have in fact occurred.

3. At least so far as the provision of jobs is concerned, therefore, the region's economy has sbown a lack of vigour and dynamism. The North West has had a good deal more in common with the other older industrial regions of the country than with the buoyant Midlands and South East. Part of tbe explanation lies in the sharp contraction which has occurred in recent years in the labour forces of some of the North West's traditional industries—for example coal mining, shipbuilding, port operations and above all textiles. Indeed, the loss of jobs in these industries has been on such a scale that at first sight it appears remarkable that the region has passed through the period of their contraction with so little difficulty. Moreover, a closer examination of the structure of the region's economy shows that tbese obvious weaknesses have not been by any means its only handicaps.

THE STRUCTURE OF MANUFACTURING

4. The North West is a major industrial region and has a much higher proportion of its labour force in manufacturing than is the case in Britain generally. (See Figure 15.) However, this dominance is becoming less marked. In 1953 manufacturing provided nearly half the North West's total employment, as compared with only 40 per cent in tbe country as a whole. But while manufacturing's share of the national total dropped only slightly between 1953 and 1963 (to 38 per cent), in the North West there was a more noticeable fall (to just under 46 per cent). Nationally, the number of jobs in manufacturing increased by more than 7½ per cent over the decade, but in the North West by contrast there was a decline of 4 per cent.

5. Table 5 summarises the resulting structure of manufacturing industry in the region and nationally, by sbowing total employment in mid-1963 in the various industrial Orders of the Standard Industrial Classification. These Orders are broad groupings and some of them cover very

[1] See Tables 35 and 36 of the Statistical Appendix.

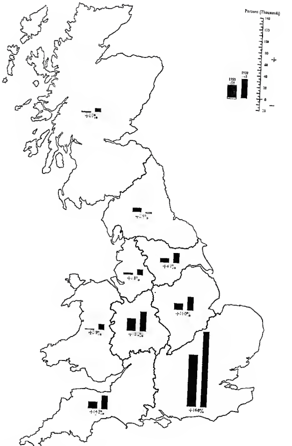

Fig. 13. Employment: total change by Ministry of Labour regions; 1953-59 and 1959-63
The heights and widths of the columns are proportional to the mean annual changes in estimated numbers of employees employed at mid-year and to the length of the period respectively. Thus, volume of total change is represented by the area of the columns. Percentage growth over the period 1953-63 as a whole is given in figures. The total increase 1953-63 in numbers employed in Great Britain was about 1,883,000 or 9.1 per cent (see Appendix, Table 18)

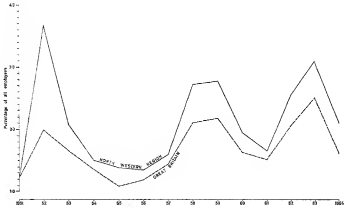

Fig. 14. Great Britain and the North Western Region: unemployment rates, 1951-64
The annual average of the monthly figures of total registered unemployed (including temporarily stopped) expressed as a percentage of the estimated number of employees (employed and unemployed) at mid-year is plotted for the years 1951-64 for Great Britain and for the North Western Region of the Ministry of Labour (see Appendix, Table 34)

diverse forms of industrial activity (for example "vehicles" includes the production of aircraft and railway locomotives and rolling stock, as well as of cars and commercial vehicles). Comparisons at Order level can therefore give no more than a very general impression of the extent to which the pattern of manufacturing in the North West corresponds to the national pattern. Nevertheless Table 5 shows clearly that the range of manufacturing in the region is very wide. While the textile industry remains of considerably more importance to the North West's economy than to that of Great Britain, it now provides less than a fifth of the region's manufacturing employment and has a much smaller labour force than the engineering industry. The clothing and footwear industry is also relatively larger in the North West than nationally and so too are the chemical and food industries. The only Order which is substantially less important in the region is metal manufacture.

6. **The textile industry** in the North West has of course traditionally been based to a very large extent on cotton. In the early days of the Industrial Revolution the western slopes of the Pennines provided the water power and humid weather conditions which were then thought essential to the cotton manufacturing processes, and throughout the nineteenth century the tremendous expansion of the industry was the basis for the region's very rapid growth. Specialisation within the industry became highly developed, to the extent that towns immediately to the north of Manchester (like Bolton, Rochdale and Oldham) were almost exclusively concerned with spinning, while those further north (like Burnley, Blackburn and Preston) concentrated on weaving. The general organisation of the

Table 5 **Estimated numbers of employees in employment in manufacturing industry in the North West and Great Britain, mid-1963**

	North West		Great Britain	
	Numbers employed 000s	*% of total employment*	*Numbers employed 000s*	*% of total employment*
Food, Drink and Tobacco	126	4·3	805	3·6
Chemicals and Allied Industries	122	4·2	511	2·3
Metal Manufacture	38	1·3	591	2·6
Engineering, Electrical Goods and Metal Goods	344	11·8	2,671	11·9
Shipbuilding and Marine Engineering	31	1·0	211	0·9
Vehicles	115	3·9	866	3·9
Textiles	235	8·0	776	3·5
Leather, Leather Goods and Fur	10	0·3	62	0·3
Clothing and Footwear	99	3·4	543	2·4
Bricks, Pottery, Glass, Cement, etc.	46	1·6	337	1·5
Timber, Furniture, etc.	30	1·0	281	1·2
Paper, Printing and Publishing	88	3·0	621	2·8
Other Manufacturing	58	2·0	307	1·4
Total Manufacturing Industries	1,342	45·8	8,582	38·1

NOTES:

1. These estimates are derived from samples of national insurance card exchanges in June, July and August, and so are subject to sampling and estimation errors which can be substantial in the case of small groups.

2. The regional estimates do not take full account of cases where a person is employed in another region from that in which his card is exchanged.

3. The estimates also include some persons not in employment at mid-year who were not registered as unemployed in June, but who exchanged their insurance cards during the June to August quarter.

4. Part-time and occasional workers as well as school pupils and students with jobs are reckoned as whole units.

industry was in small to medium-sized units, which mainly confined themselves to one stage in the production process.

7. In terms of output and exports, the Lancashire cotton industry reached its peak in the years immediately before the First World War. But there had already for some time been signs that its dominant position in the world was being eroded. After 1918, it became very clear that the halcyon days were over and the past half century has been a prolonged, and often painful, period of adjustment for the industry. It grew up to supply cloth to markets all over the world, but has had gradually to accustom itself to a situation where it has been excluded from many markets in favour of local production and has had to re-adjust towards supplying markets in industrial countries (including the domestic market) where the emphasis is increasingly on production of branded advertised fashion goods.

8. The Government has assisted the industry in recent years by encouraging rationalisation and modernisation and by taking special steps to restrain the growth of imports. The industry's traditional character is being radically altered. Large national companies (particularly I.C.I. and Courtaulds) have acquired a substantial stake in it and are breaking down the old horizontal form of organisation by developing integrated production from the raw material stage right through to marketing. Knitting processes are replacing weaving in some sectors of production. And it is no longer strictly accurate even to talk of the "cotton" industry, since man-made fibres are accounting for an increasing proportion of the materials used.

9. There now appears to be a much better prospect that the industry will achieve greater stability in the future, at least in its output. But further substantial increases in productivity will be essential and the demand for labour is therefore likely to go on shrinking. However, a considerable contraction in the industry's labour force is likely to occur naturally, since a high proportion of its workers are now aged over 55. Indeed recruitment of sufficient labour, above all for shift-work, may become one of its major problems, especially if employment generally in the region expands more rapidly in future.

10. Some of the other sections of manufacturing in the North West have traditionally been closely associated with the cotton industry. This was once particularly true of the **clothing industry**, but it now uses a wide range of fabrics and materials. Well over one sixth of the industry's total employment nationally is in the North West. Manchester is the national centre of the rainwear trade and also produces a great deal of light clothing; Stockport is a major hatting centre; and slippers and other footwear are produced in Rossendale and in Furness and the Fylde. Most of the industry is made up of small firms, but Montague Burton Ltd. employ several thousand people in tailoring.

11. Much of the North West's **engineering industry** can also trace its origins back to a close relationship with textiles, though as a supplier rather than a customer. But although the region still contains many of the leading textile machinery manufacturers, it also produces a vast variety of other engineering goods and the link with the cotton industry has become much less significant. About one third of the country's insulated cable and wire industry is concentrated in the North West, and other forms of electrical engineering which are carried on in the region include virtually everything from the production of heavy generating plant, turbines, switchgear and transformers down to the manufacture of radio valves, cathode ray tubes, record players, telephones and domestic appliances. Several firms specialising in computers and advanced electronic equipment are well established and the production of components for the motor industry is of growing importance. In mechanical engineering the range of products is just as wide—including chemical plant and diesel engines, earth-moving equipment and paper machinery, atomic power plant and food machinery, printing presses, chains and some machine tools.

12. Well over a dozen engineering firms—most of them major national companies—each provide more than 5,000 jobs in the North West. They include English Electric, A.E.I. Ltd., British Insulated Callender's Cables, Ferranti, the Plessey Group, Joseph Lucas Ltd., Philips Electronic and Associated Industries Ltd., the Stone-Platt group and Vickers Ltd.

13. The **vehicle industry** has taken on a new importance in the North West with the establishment of the Ford, Vauxhall and Standard Triumph plants on Merseyside. Previously, the region was a centre for the production of commercial vehicles, particularly by Leyland Motors.

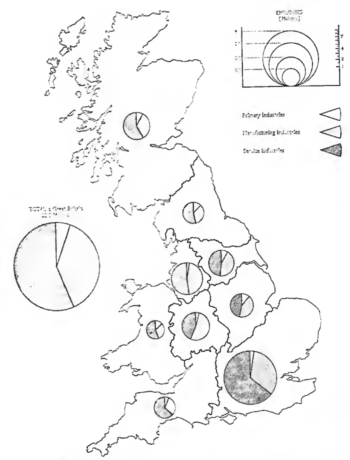

Fig. 15. Employment structure by Ministry of Labour regions, 1963

The area of the circles represents the total number of employees employed in each Ministry of Labour region: the sectors sbow the distribution between these broad industrial categories (see Appendix. Table 22)

It also has important railway workshops and several factories producing locomotives. The aircraft industry in the region (which is included in the vehicles group) has been very dependent on military orders and has recently been affected by the cancellation of the T.S.R.2.

14. There are only two large **shipbuilding** firms in the North West—Vickers at Barrow-in-Furness and Cammell Laird at Birkenhead. Both specialise in the building of submarines, but also carry out other kinds of work. In addition, a number of smaller firms on Merseyside are engaged in ship repairing.

15. The North West has long been a major centre of the **chemical industry** which originally developed in the region to exploit the mid-Cheshire salt deposits and to provide dyes for the cotton industry. The region now has nearly one quarter of the industry's total employment nationally and this is quite well distributed between different types of production. Bulk basic chemicals and dyestuffs remain of most importance: Manchester is the centre for dyestuffs production; chlorine, caustic soda and acids are manufactured at Widnes and Runcorn, and to a lesser extent at Fleetwood; and the production of salt and soda-based chemicals is concentrated in the Northwich area. I.C.I. Ltd. is the major employer in this section of the industry. Petro-chemical production has developed in the post-war period, mainly at Carrington based on the Shell refinery at Ellesmere Port, and further development in this field seems probable. The processing of vegetable oils and fats is dominated by Unilever Ltd., who have major plants on Merseyside and at Warrington. There is also some production of pharmaceuticals and paints in the region—particularly on Merseyside, at St. Helens and at Ulverston in Furness.

16. Quite apart from its importance as a centre of production for the chemical industry, the North West also contains a high proportion of the industry's research facilities. Shell, I.C.I., Unilever and other firms all have major research laboratories in the region and close contacts have developed with related departments in the universities.

17. The processing of goods imported through the port of Liverpool played an important part in the development of the **food industry** in the North West. Indeed, Merseyside remains the largest flour milling centre in Europe. Unilever are one of the region's leading employers in this industry also, which is related to their fat and vegetable oil processing interests so far as the production of margarine, edible oils and animal feeding stuffs is concerned; however, they are also involved through subsidiaries in the preparation and packing of frozen foods and of meat products. About one quarter of national employment in biscuit production is in the North West and again Merseyside is the main centre. Among other major units in this industry are Heinz's canning plants in the Wigan area; Kellogg's factory in Manchester for the production of breakfast cereals; Tate and Lyle's sugar refinery in Liverpool; and several tobacco factories on Merseyside, and in Ashton-under-Lyne, Hyde, and Middleton.

18. Of the remaining sections of manufacturing in the North West, the paper, glass, rubber, and metal processing industries are the most significant. The region's **paper industry** covers a variety of activities, including nearly one fifth of the country's paper and board production, several major wallpaper factories and (in Manchester) the printing and publishing of national newspapers. The **glass industry** is concentrated in St. Helens where the best known company is Pilkington Brothers Ltd. About one quarter of the **rubber industry's** total national employment is in the North West; Dunlops are the largest firm and have factories producing tyres, footwear and general goods in both Manchester and Liverpool, while Michelin's have an important tyre factory in Burnley. The region has only one large **metal processing** concern — the Lancashire Steel Company, in the Warrington area, much of whose production is used by the local wire industry; but Barrow-in-Furness has a small steel works and there are several plants processing non-ferrous metals in Manchester, Merseyside, Warrington and St. Helens.

RECENT EMPLOYMENT TRENDS IN MANUFACTURING

19. Table 6 shows percentage changes in manufacturing employment regionally and nationally between 1953 and 1963. Employment in the textile industry declined by well over one-third in the North West over this decade. Whereas in 1953 it provided rather more than one job in eight in the region, by 1963 it was providing less

than one in twelve. In absolute terms, the loss of jobs in textiles amounted to 137,000 and this far exceeded the total decline in manufacturing employment, which was only 56,000. In other words, employment in other manufacturing industries increased by about 81,000 between 1953 and 1963. Growth was fastest in the paper and food industries, in the bricks, pottery and glass group and in engineering and vehicles.

20. But quite apart from textiles, employment in eight of the remaining twelve manufacturing Orders either grew more slowly or declined more rapidly in the North West than in Britain generally between 1953 and 1963. Even in engineering, the North West's growth of just under 16½ per cent was well below the national level of over 23 per cent. And of the four Orders where growth was faster in the region than nationally, two (the food industry and the bricks, pottery and glass group) showed a rapid increase in employment in the early 1950's but fell well behind the national rate after 1959; another (vehicles) was given a substantial boost by Government intervention which encouraged the motor industry to establish several new plants on Merseyside, while the fourth (the paper industry) still provided only 3 per cent of the region's employment in 1963, despite an increase of more than a quarter in its labour force over the decade. Thus it might appear as if manufacturing industry generally had been less dynamic in the North West than nationally.

21. However, it is possible (at least in theory) to distinguish between two alternative hypothetical explanations for the North West's poor performance. Firstly, it might have been the case that a majority of the individual firms in the region increased their demand for labour less rapidly than firms engaged in comparable types of production in other parts of the country. Since there is no evidence of a particularly rapid rise in labour productivity generally in the North West, it would follow on this hypothesis that firms in the region were tending to be less successful than their competitors elsewhere, and it would appear that the region must suffer from some peculiar handicap which adversely affected most forms of industrial activity there. Alternatively, the North West's main disadvantage may have been in the structure of its manufacturing employment.

Table 6 **Estimate of percentage changes in employees in employment in manufacturing industry 1953-1963**

	1953-1959		1959-1963		1953-1963	
	North West	*Great Britain*	*North West*	*Great Britain*	*North West*	*Great Britain*
Food, Drink and Tobacco	+13·4	+ 6·5	+ 1·4	+ 3·1	+15·0	+ 9·8
Chemicals and Allied Industries	+10·8	+10·7	− 5·3	− 0·8	+ 4·9	+ 9·8
Metal Manufacture	+ 1·8	+ 1·1	− 9·4	+ 3·2	− 7·7	+ 4·4
Engineering, Electrical Goods and Metal Goods	+ 6·6	+11·3	+ 9·3	+10·8	+16·4	+23·3
Shipbuilding and Marine Engineering	− 3·8	− 6·0	−23·3	−20·7	−26·2	−25·5
Vehicles	+ 4·4	+10·4	+12·7	+ 0·7	+17·7	+11·2
Textiles	−19·7	−12·8	−21·4	− 7·5	−36·9	−19·4
Leather, Leather Goods and Fur	−20·6	−11·6	− 8·5	− 1·9	−27·3	−13·3
Clothing and Footwear	−11·5	− 7·7	− 0·3	− 0·6	−11·8	− 8·3
Bricks, Pottery, Glass, Cement, etc.	+ 7·0	− 2·7	+ 2·9	+ 4·3	+10·1	+ 1·5
Timber, Furniture, etc.	−12·6	− 1·1	+ 3·1	+ 0·5	− 9·9	− 0·6
Paper, Printing and Publishing	+13·5	+15·0	+10·7	+ 9·1	+25·7	+25·5
Other Manufacturing Industries	+ 3·6	+12·7	+ 4·7	+10·4	+ 8·5	+24·5
Total Manufacturing Industries	− 1·9	+ 4·2	− 2·1	+ 3·3	− 4·0	+ 7·6

NOTE:
These percentage changes are calculated from estimates derived from samples which are subject to the limitations set out in the footnotes to Table 5. They can only indicate the order of magnitude of the changes in a very broad way. They are given to one decimal place for the purposes of uniform presentation, but where numbers employed in an industry are small, the percentage changes should be interpreted with great caution.

In other words, individual firms in the North West may have been growing just as rapidly as firms producing the same sort of goods elsewhere, but they may have tended to specialise in types of production which have nationally given rise to slower employment growth. Slow growing and declining sections of manufacturing may have made up a larger part of the North West's particular "mix" of industries than they have nationally. An explanation along these lines would suggest that the slow growth in manufacturing employment in the North West in recent years was to a large extent a result of its past industrial history, and that an improvement in the growth rate in future will depend on the pace at which the region's industry proves able to diversify into more rapidly expanding types of production.

22. Much more detailed regional figures of employment in individual industries than are at present available would be required before it would be possible to make a final assessment of the weight which should be given to each of these two alternative hypotheses. But such evidence as is available suggests that weaknesses in the structure of the North West's manufacturing industry have been by far the more important cause of the region's slow employment growth.

23. The case of the textile industry is a particularly good example of the way in which employment in the North West has tended to be concentrated in the slower growing (or declining) sections of manufacturing. In 1953, this industry accounted for only 4·7 per cent of total employment nationally, as compared with 12·9 per cent in the North West. While the North West lost 137,000 jobs in textiles between 1953 and 1963, the rest of Great Britain lost fewer than 50,000. If the industry had had the same relative importance in the North West as in the rest of the country and had declined at the same rate, the region would have lost only 8,000 jobs over the decade. But, in fact, not only was the textile industry of much greater relative importance to the North West, but also a high proportion of the region's textile employment was in the cotton section of the industry and it was this section which declined by far the most rapidly nationally between 1953 and 1963.

24. Similar factors seem to have affected the performance of other industrial Orders in the North West. Thus in the vehicles group the region had not, until the last few years, shared in the rapid growth of the motor car industry, but had instead suffered from the decline in demand for locomotives and the gradual contraction of the aircraft industry. Within the engineering group, the region has had a bias towards the heavier end of the capital goods industries and several of the lighter, rapidly-growing, sections (for example scientific equipment, office machinery, domestic electric appliances and engineers' small tools) have accounted for a relatively small proportion of total employment. Similarly, the chemical industry in the North West has tended to specialise in the production of bulk basic chemicals and soaps, fats, greases and paints, rather than fine chemicals, pharmaceuticals, synthetic resins and plastics, where employment has been growing most rapidly. A final example is the clothing industry, where the tailoring section, in which employment has been declining, is of greater importance in the North West than nationally.

25. Substantial changes occurred during the 1950s in the structure of manufacturing in the North West. New firms which settled in the region between 1953 and 1963 are currently providing about 50,000 jobs. Of these, the motor industry projects on Merseyside are perhaps the most significant, and there is some evidence that they have begun to stimulate the development of industries supplying components. Ford's plant at Halewood, for example, purchases components from nearly 30 other firms in the North West, ten of which have recently carried out new projects in the region. There have also been sizeable developments in such industries as oil refining and petrochemicals, pharmaceuticals, light engineering, electronics and automation equipment. Moreover the process of change in the North West's indigenous industries has diminished the influence of those sections which are in decline. In particular the very rapid contraction of the cotton industry has considerably reduced its importance to the region's economy. As has been suggested, this industry may achieve greater stability in future, but even if it continues to contract at much the same rate as in the past, the effect on employment in the North West as a whole will be much less marked. In 1953 nearly 41 per cent of manufacturing employment in the North West was in industrial Orders which declined nationally over the next decade, com-

pared with just under 25 per cent in the rest of Great Britain. By 1963, these Orders accounted for only a little over 30 per cent of the region's manufacturing employment, compared with just over 20 per cent in the rest of the country.

26. However, although the North West's manufacturing base now seems to be a good deal stronger than it was at the beginning of the 'fifties, by no means all its structural disadvantages have yet disappeared. It would probably be wisest to assume that left to itself employment growth in manufacturing in the region will continue for some time to come to be at a rate some way below the national average. The possibility that further absolute declines may still occur cannot be completely ruled out.

PRIMARY INDUSTRIES

27. As Table 7 shows, the primary industries are no longer of great significance in the employment structure of the North West. Between them, mining and quarrying, and agriculture, forestry and fishing employ under 2½ per cent of the region's labour force, as compared with 5½ per cent in Great Britain.

28. **Coal mining** was, of course, one of the great traditional industries of the North West, but most of the easily worked reserves have been exhausted and mining has become a highly mechanised operation concentrated on a reduced number of modern or modernised pits. It is now an industry of major local significance only in the Wigan/St. Helens area and in North East Lancashire. Employment fell by a third between 1953 and 1963 and is likely to go on declining; but the effect of this on the region as a whole will be no more than marginal.

29. The share of the North West's labour force which is engaged in **agriculture** is underestimated by Table 7 since a large number of self-employed occupiers work on their farms, in addition to their employees. Altogether there are just over 25,000 separate agricultural and horticultural holdings in the region, with about 50,000 occupiers and full-time workers, supplemented by about 6,000 part-time and seasonal workers. And it is estimated that the processing, marketing and packing of the region's produce, and the provision and maintenance of agricultural machinery provide jobs for another 80,000 to 90,000 people in the region's manufacturing and service industries. Broadly speaking, the land north of the Mersey carries the bulk of the potatoes, vegetables and glasshouse crops which supply the region's vast urban market while the land to the south provides milk and dairy produce.

30. With improving techniques and increasing mechanisation, the region's rising agricultural output is being achieved with a declining labour force. The number of full-time workers has fallen by over a quarter in the last ten years and it would not be surprising if contraction continued in future. Since about 60 per cent of the holdings in the region are of less than 50 acres, there is also considerable scope for further amalgamation and a substantial reduction in the number of occupiers. But a continuing fall in the numbers engaged in agriculture is unlikely to cause any real difficulty, particularly as none of the region's farming areas is remote from towns where alternative employment should be available.

Table 7 **Employees in Employment in Primary Industries in the North West and Great Britain 1953-1963**[1]

	North West			Great Britain		
	Numbers employed 1963 (000s)	*% of total employment*	*% decline* 1953-63	*Numbers employed* 1963 (000s)	*% of total employment*	*% decline* 1953-63
Agriculture, Forestry and Fishing	24	0·8	30·0	554	2·5	24·7
Mining and Quarrying	45	1·5	33·1	682	3·0	22·4
Total Extractive Industries	69	2·3	32·1	1,236	5·5	23·5

1 The estimates given in this table are subject to the same qualifications as those mentioned in the notes to Tables 5 and 6.

31. The **fishing** industry directly provides jobs for just under 2,000 fishermen, but a further 2,500 or so workers are employed ashore in the industry and ancillary trades. Fleetwood is the third largest fishing port in England and Wales and the only distant-water port on the west coast, the main fishing grounds being off Iceland and the West of Scotland and in the Irish Sea. In 1964 the value of landings was over £4½ million, and some 70 per cent of the fish was processed before dispatch to inland markets.

THE STRUCTURE OF SERVICE EMPLOYMENT

32. In contrast to manufacturing, where the number of jobs in the North West declined by 4 per cent between 1953 and 1963, and the primary industries, where they decreased by nearly a third, there was considerable employment growth in the service sector in the region. Construction and the service industries as a group employed nearly 140,000 more people in 1963 than ten years earlier. Whereas in 1953 they provided 47 per cent of the North West's total employment (or a slightly smaller proportion than manufacturing), by 1963 their share of the total had risen to over half—nearly 52 per cent. Nevertheless the service sector was still of greater relative importance nationally in 1963, accounting for 56 per cent of total employment.

33. Table 8 shows the broad division of employment in services in mid-1963 both regionally and nationally, between the various Orders of the Standard Industrial Classification. Only the **transport and communications** group is of greater relative importance in the North West than in Great Britain as a whole—for the region contains two of the country's leading ports (Liverpool and Manchester) and several big rail and road haulage centres. The **distributive trades,** which are the largest source of service employment, provide as big a share of the region's total jobs as they do nationally, partly because the North West appears to have relatively more small shops than any other part of the country[2], but also because mail order firms, the Co-operative Wholesale Society and merchanting organisations are major employers, especially in Manchester and Liverpool.

34. But the remaining six service groups are all relatively smaller in the North West than nationally. Given the massive need for slum clearance and general urban renewal, it is perhaps remarkable that the **construction industry** provides only 6 per cent of the region's jobs, whereas the national figure is nearly 7 per cent. **Miscellaneous services** are also a good deal less significant in the region than nationally, even though Liverpool is a major centre of the football pool firms and Blackpool, Morecambe, Southport and other coastal towns are major holiday resorts[3].

Table 8 **Estimated numbers of employees in employment in construction and the service industries in the North West and Great Britain, mid-1963**[1]

	North West		Great Britain	
	Numbers employed 000s	*% of total employment*	*Numbers employed* 000s	*% of total employment*
Construction	175	6·0	1,540	6·9
Gas, Electricity and Water	49	1·7	397	1·8
Transport and Communications	229	7·8	1,606	7·1
Distributive Trades	379	12·9	2,904	12·9
Insurance, Banking and Finance	62	2·1	603	2·7
Professional and Scientific Services	262	8·9	2,214	9·8
Miscellaneous Services	220	7·5	2,064	9·2
Public Administration	144	4·9	1,339	6·0
Total Service Industries	1,519	51·9	12,667	56·4

[1] These estimates are subject to the same qualifications as those mentioned in the notes to Table 5.
[2] The evidence for this, which is drawn from the Censuses of Distribution, is discussed below in Chapter 5, paragraph 5.
[3] However, many landladies and others who work in the holiday trades are self-employed and will not therefore be included in these figures of employees.

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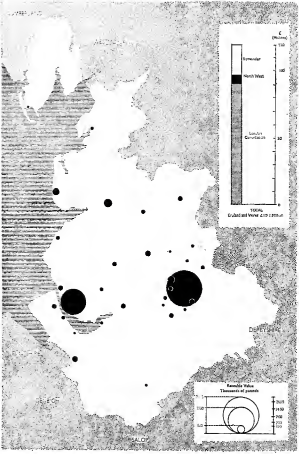

Fig. 16. Rateable value of commercial offices, 1964

The rateable value of commercial offices at April, 1964, for local authority areas with more than £15,000 office rateable value is represented by the area of the circles. In the case of Manchester, Liverpool and Birkenhead, contiguous areas, each having more than £15,000 office rateable value, have been grouped together

35. Rateable values provide one measure of the commercial importance of offices in the North West's economy. (See Figure 16.) The North West has 5·4 per cent of the total office rateable value in England and Wales and no other region outside London and the South East has so large a share of the national total. Manchester and Liverpool rank as first and third in importance among the main provincial office centres outside London, and almost entirely because of their position the Mersey division accounts for over four fifths of the total rateable value of offices in the region. However, the county towns of Preston and Chester also have above average concentrations of offices and have both increased in importance as office centres in recent years. In addition, offices are prominent in the local economy in Warrington, Wigan and Runcorn. Nevertheless, **professional and scientific services, public administration,** and **insurance, banking and finance** together account for only just under 16 per cent of the North West's total employment, compared with nearly 18½ per cent in Great Britain.

GROWTH IN SERVICE EMPLOYMENT

36. Even in construction and the service industries, employment grew more slowly between 1953 and 1963 in the North West than in Britain generally—by just over 10 per cent as against 15 per cent. Only in Scotland was employment growth in the service sector slower. One important explanation of this slower growth was the greater relative importance of the transport and communications group in the region, since this was the only service Order where the size of the labour force was contracting during the decade in the country as a whole. But as Table 9 shows, none of the expanding service industries increased their employment as rapidly in the North West as in the country generally; and both in the gas, electricity and water group and in miscellaneous services the number of jobs in the region actually fell, while there was considerable growth nationally.

37. However, there have been some signs of an improvement in the North West's relative position in recent years. Between 1959 and 1963 professional and scientific services—the most rapidly expanding group in the country as a whole—grew even faster in the North West than nationally. The growth of employment in public administration was also at a rate above the national average in this period. And in construction, the region's employment increased much faster after 1959 and was indeed growing as rapidly as in Britain generally.

38. But not all the evidence points in the same direction. In the distributive trades, for example, the rate of employment growth in the North West fell well behind the national average after 1959, although it had been slightly above the national level earlier; while in transport and communications the number of jobs fell more sharply in the region than nationally after 1959,

Table 9 **Estimate of percentage changes in employees in employment in construction and the service industries 1953-1963**[1]

	1953-1959		1959-1963		1953-1963	
	North West	*Great Britain*	*North West*	*Great Britain*	*North West*	*Great Britain*
Construction	+ 1·2	+ 4·5	+11·8	+11·7	+13·2	+16·8
Gas, Electricity and Water	− 2·2	+ 0·4	+ 1·3	+ 6·1	− 0·9	+ 6·5
Transport and Communications	− 2·6	− 3·3	− 5·8	− 1·2	− 8·2	− 4·5
Distributive Trades	+14·6	+14·5	+ 3·5	+ 7·8	+18·6	+23·4
Insurance, Banking and Finance	+15·4	+18·9	+12·2	+14·2	+29·5	+35·9
Professional and Scientific Services	+15·7	+19·6	+19·2	+15·5	+37·9	+38·2
Miscellaneous Services	− 3·9	− 0·2	+ 1·0	+ 5·6	− 2·9	+ 5·4
Public Administration	− 4·6	− 1·3	+ 9·2	+ 7·9	+ 5·0	+ 6·6
Total Construction and the Service Industries	+ 4·3	+ 6·4	+ 5·6	+ 8·1	+10·2	+15·0

[1] These estimates are subject to the same qualifications as those mentioned in the note to Table 6.

in contrast to the period 1953-59 when the rate of decline was more moderate in the North West than in the country as a whole. Moreover, rateable value figures show that the North West did not attract its proportionate share of the new office development which took place in Great Britain between 1958 and 1963, largely because there was little new development in Liverpool. Whilst Manchester, which had 3·1 per cent of national office rateable value in 1958, acquired 3·8 per cent of the increase which took place in the next five years, Liverpool, with 2·5 per cent of the national total in 1958, was responsible for only 0·9 per cent of the increase. Manchester has therefore significantly strengthened its position as an office centre and now has about 9 million square feet of office floor space (compared with Liverpool's 7·2 million).

39. Further research could usefully be undertaken into the reasons for past variations in the rate of employment growth in service industries in the North West and into the prospects for future growth. But it seems reasonable to assume that the number of people working in these industries in the region will continue to increase steadily.

EMPLOYMENT TRENDS WITHIN THE REGION

40. Different parts of the North West make very varied contributions towards the economic life of the region generally. Some areas rely very heavily on certain sections of manufacturing for their employment, while in others the service industries predominate. The fortunes of some have traditionally been bound up very closely with the prosperity of the cotton industry; whereas others have for long had a well-diversified economy. Any account of the North West's employment structure must therefore go beyond aggregate figures for the region as a whole, if it is not to give a misleading impression of uniformity.

41. Variations in the experience of different sub-regions have been particularly noticeable in the past decade. For the purpose of analysing employment trends, the North West has been divided into twelve sub-regions which very broadly form separate labour catchment areas (though in a densely populated region like the North West, boundaries of this kind are, of course, bound to be somewhat arbitrary). Figure 17 shows these sub-regions and Figure 18 illustrates the changes in total employment which occurred between 1953 and 1963.

42. Employment growth in recent years has been fastest in the areas to the west of the region, along the coast. The rate of growth has been highest in the Fylde (where it exceeded the average for Great Britain as a whole) and in the Lancaster/Morecambe and Southport/Ormskirk areas. But the labour forces in these three sub-regions remain comparatively small. In absolute terms the largest increase in the number of jobs has occurred on Merseyside which has nearly a quarter of the region's working population and which also has had a rate of growth well over three times the regional average.

43. By contrast, in three sub-regions which cover a large part of the region, lying mainly to the north and east of Manchester, but stretching also as far westwards as Preston and Chorley, employment declined between 1953 and 1963. North East Lancashire was the area most seriously affected and lost rather more than one job in every ten over the decade. The experience of the High Peak sub-region, to the east and south-east of Manchester, was only slightly better, and its employment was virtually static. These four sub-regions contain all the traditional "cotton" towns and have been significantly affected by the industry's decline.

44. In the other main sector of the North West, taking up the southern and central part of the region, and including the southern half of the Manchester conurbation, Wigan, Warrington and St. Helens as well as much of Cheshire, there was moderate employment growth between 1953 and 1963. These three sub-regions together include not far short of 40 per cent of the total number of employees in the North West. Their rate of increase of employment was well below the national level, but was above the average for the region as a whole.

45. As might be expected, this general pattern of employment growth and decline broadly corresponds with the pattern of population growth and decline within the region. Population has increased most rapidly on Merseyside and in other coastal areas, in the southern fringes of the Manchester conurbation and in Cheshire; and it is in these areas that employment growth has been most marked. Similarly, population has declined in the northern part of the Manchester

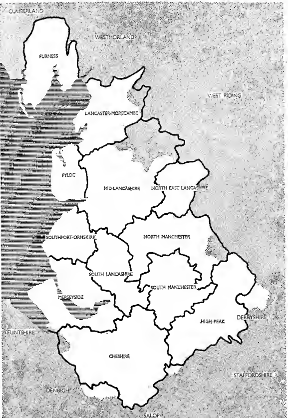

Fig. 17. Sub-divisions of the North West for employment statistics

Comprehensive employment statistics are not available for areas smaller than Ministry of Labour regions. The sub-divisions shown are aggregations of Ministry of Labour local office areas for which some estimates have been specially prepared for Study purposes

conurbation and in the towns to the north and east, especially in North East Lancashire; and here the number of jobs has also fallen. In Furness, there has been little or no employment growth and population has fallen slightly. There are a few marginal cases where population and employment trends seem to diverge—for example the Preston area has experienced rapid population growth, but is included in the Mid-Lancashire sub-region, where employment has declined—but most of these are probably more apparent than real and merely reflect the different bases on which the two sets of statistics have been collected.

46. On Merseyside, however, although employment growth has been very rapid by North West standards, it has not been able to keep pace with the even faster rate of increase in the area's labour force. Despite substantial outward migration, there has been a persistent problem of high unemployment and the area is currently listed as a development district under the Local Employment Acts. (The situation on Merseyside is examined in detail in an appendix to this report and only a brief summary is given here.)

47. Manufacturing industry which was already established on Merseyside before 1953 provided hardly any additional employment in the following ten years, and if no new industry had come into the area during this period, there might have been a fall of 13,000 jobs in the manufacturing sector. As it was, rather more than 30,000 new jobs were provided, mainly in engineering and in the motor, food and paper industries; and over the decade as a whole manufacturing employment grew by 7 per cent. However, there was a slight fall in 1959-63, mainly because of a sharp contraction in ship-repairing. Meanwhile, the rate of growth of employment in the service industries (which as a group provide over 60 per cent of the area's jobs) was well below the national average between 1953 and 1963 and was particularly low in 1959-63. Much of the explanation for this slow growth is to be found in the important part which the transport and communications industry plays in the economy of Merseyside, where the industry's labour force has declined faster than has been the case nationally. But employment in construction also declined sharply between 1953 and 1959; and its rate of growth subsequently was below the national average and did not quite make good the earlier losses. In total, employment on Merseyside expanded almost as rapidly as in Great Britain as a whole between 1953 and 1959, but its rate of growth was less than half the national average between 1959 and 1963.

48. The rate of unemployment remained at around two and a half times the national average rate throughout the decade. Heavy and persistent male unemployment was the crux of the problem, but unemployment amongst women was also serious. The unemployed on Merseyside tend to be younger than in the country generally and to take longer to find a fresh job. The proportion of labourers amongst them is about the same as the national average, but of the skilled labour available a higher than average proportion is accounted for by men with specialised shipyard skills.

49. By contrast with Merseyside, those parts of the region which have been most affected by the decline of the cotton industry have not suffered from persistently high unemployment in recent years. But their populations have continued to fall, with outward migration in some places reinforcing a tendency for deaths to exceed births because age structures have become unbalanced. North East Lancashire lost nearly 19,000 jobs in textiles between 1953 and 1963, Mid-Lancashire over 23,000 and the northern part of the Manchester conurbation[1] nearly 62,000. In all three areas there was considerable growth in other industries and services, but this was insufficient to offset the decline in employment in textiles. In the High Peak area, the loss of jobs in textiles amounted to about 4,000 and this virtually matched the growth in other employment. If these four sub-regions are set on one side, the decline in textiles between 1953 and 1963 cost the remainder of the North West less than 30,000 jobs altogether.

50. The textile industry is a major employer of female labour, and, except in the High Peak area, women have been much more seriously affected than men by the changes of the past decade. In North East Lancashire, the number of women in employment fell by almost 13½ per cent and of men by only just over 7½ per cent; in Northern Manchester[1] the comparable figures were nearly 6½ per cent for women and little

[1] This sub-region includes towns like Bolton, Bury, Rochdale and Oldham as well as some of the northern suburbs of Manchester itself.

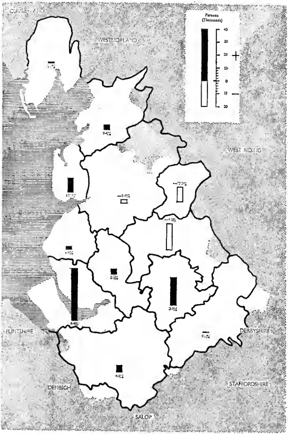

Fig. 18. Employment: total change: 1953-63
The heights of the columns are proportional to the changes in estimated numbers of employees employed 1953-63. Percentage change over the period is given in figures (see Appendix, Table 37)

more than 3 per cent for men, while in Mid-Lancashire the number of men in employment actually increased by over 2 per cent, while jobs for women fell by almost 7 per cent.

51. In all these four sub-regions the structure of employment has become a good deal more diversified over the past decade. In all of them, there has been growth in the service industries, especially in the distributive trades and professional and scientific services. And there have also been developments in other forms of manufacturing—most noticeably in Northern Manchester[1] where there have been sizeable increases in employment in engineering, vehicles, clothing and footwear, the food and paper industries and the "other manufacturing" group; and in North East Lancashire where employment in engineering more than doubled between 1953 and 1963. However, only in Northern Manchester (where, despite a sharp contraction in coal mining, total employment increased very slightly between 1959 and 1963) have there been clear signs of a slackening in the rate of overall decline in the last few years. In all four sub-regions, the service sector remains comparatively small, accounting for under 35 per cent of total employment in North East Lancashire and for no more than 44 per cent in Mid-Lancashire, where its share of the total is highest. And in all four, textiles still provide an important part of total employment—almost 30 per cent in North East Lancashire, nearly a quarter in the High Peak area and in Northern Manchester, and not quite 15 per cent in Mid-Lancashire. There may therefore be some further falls in employment in these areas in future. But paradoxically continued outward migration may check expansion of some industries, by causing a shortage of suitable labour.

52. Employment trends in the area of moderate growth in the central and southern part of the region have not followed any clear pattern. The South Manchester sub-region includes both the commercial centre of the conurbation and some of its most important industrial areas, especially the Trafford Park estate. It is a particularly important centre of the engineering industry and has well over one-third of all the North West's engineering employment. But employment growth in this industry between 1953 and 1963 was at a rate somewhat below the regional average (and at not much more than half the national average) and was not nearly sufficient to offset a substantial loss of jobs in the textile and clothing industries and in vehicle production. Despite some growth in other sections of manufacturing (especially the paper and chemical industries), manufacturing employment as a whole fell by nearly 7 per cent in these ten years. This decline principally affected female employment: jobs for men in manufacturing increased slightly over the decade and growth was quite rapid between 1959 and 1963. Even in the case of female employment, however, rapid growth in service industries more than offset the loss of jobs in manufacturing. The expansion of employment in the service sector as a whole was at a rate not far short of the national average, and was particularly rapid in construction, public administration, insurance, banking and finance and professional and scientific services. The general effect of these changes was to produce an acceleration in the growth of the South Manchester area's total employment after 1959.

53. Both in the South Lancashire and Cheshire sub-regions female employment grew much more rapidly than male employment. Indeed, jobs for men increased by only 1 per cent in Cheshire and by even less in South Lancashire. In South Lancashire (which includes Wigan, Warrington and St. Helens) there was a sharp contraction of employment in mining, and some loss of jobs in manufacturing after 1959, following a period of strong expansion earlier. On the other hand, the service sector, which was tending to decline between 1953 and 1959, has grown very rapidly in more recent years, although it still provides only just over 40 per cent of the sub-region's employment. By contrast, the Cheshire sub-region has more than half its total employment in services and this sector showed continued expansion throughout the decade. But employment in manufacturing was static and there was some loss of jobs in both agriculture and mining and quarrying.

54. In the three sub-regions of fastest employment growth—the Fylde, and the Lancaster, Morecambe and Southport/Ormskirk areas—more than two-thirds of total employment is pro-

[1] This sub-region includes towns like Bolton, Bury, Rochdale and Oldham as well as some of the northern suburbs of Manchester itself.

Fig. 19. Development districts: mid-1965

The map shows the Ministry of Lahour local office areas within which assistance may be given under the Local Employment Acts 1960 and 1963 for projects likely to create more employment. Such assistance may also be given in areas within travel-to-work distance of the development districts and in places which have "overspill" agreements covering the housing of population from development districts

vided by the service industries. This is a reflection of their status as holiday resorts and places for retirement. But although the service sector, especially the distributive trades and professional and scientific services, accounted for much of their employment growth between 1953 and 1963, manufacturing also made a useful contribution. Indeed, manufacturing employment increased by as much as a quarter in the Fylde, mainly as a result of growth in the chemical industry, engineering and vehicles.

55. Apart from Merseyside, Furness is the only part of the North West which is currently listed as a development district. Although the numbers are small by comparison, the rate of unemployment has remained persistently high in recent years, despite the fact that several new firms have established themselves in the area since the war. Vickers shipyard and engineering works at Barrow remain the basis of the economy of Furness and shipbuilding and marine engineering provide over a quarter of the area's jobs. Between 1953 and 1963, there was a substantial decline in employment in metal manufacture (largely the result of the closure of the local iron-works) and also in construction. Employment in services increased quite considerably, but the rate of growth fell away sharply after 1959. Such expansion as there has been in total employment in the area has provided jobs for women rather than men. Male employment in Furness declined by over 4 per cent between 1953 and 1963, but female employment increased by over 17 per cent.

5 The prosperity of the Region

The last chapter analysed the economy of the North West in terms of the distribution of employment between the various sectors of industry and the trends of growth and decline which have occurred during the last decade. A number of other economic indicators relating to the North West are available and go some way towards providing a more detailed understanding of the way in which the prosperity of the people of the region has been affected by the performance of its economy.

OUTPUT PER HEAD

2. In Britain generally in recent years, the population of working age has been growing more slowly than the total population. This tendency has been particularly marked in the North West. Children under the school leaving age and old people above the normal age for retirement both account for a slightly higher proportion of the North West's population than they do nationally. Moreover, between 1951 and 1961 the remaining section of the population (i.e. between 15 and retiring age) *decreased* in numbers by 2 per cent in the North West in contrast with an *increase* of rather less than 2 per cent in Great Britain. In 1961 a higher proportion of the region's population in these main working age groups was actually in the labour force, so that the number of employees in employment increased by 1·8 per cent over the decade, but population had grown rather more rapidly, by 2·9 per cent. In Great Britain as a whole the number of employees in employment increased faster than total population, by 8·6 per cent as against 5·5 per cent. Or in other words in the North West in contrast to Britain generally, there has been a tendency for the members of the working population to have to support an increasing number of dependants.

3. There are no comprehensive regional data of output, and thus none of output per employed person. However, the Censuses of Production and Distribution provide some limited evidence about labour productivity in the North West.

4. The Census of Production provides information about net output (value added, gross of depreciation) in manufacturing industry for 1954 and 1958. In both years net output per employee in the North West was 95 per cent of the average for Great Britain. This suggests that the output of the average worker in the region tended to be relatively low in the fifties, but that it was increasing as rapidly as the national average. Differences between the structure of manufacturing industry in the North West and in Britain generally were probably by far the most important reason for the region's lower level of output per employee. For example, in the textile industry net output per employee in Great Britain was only about three quarters of the average for all manufacturing industry[1], and in the cotton section of the industry it was almost certainly even lower. The changes in the structure of industry which have taken place in the region since 1958 may therefore have brought net output per employee closer to the national average. More recent information, which will eventually be provided by the 1963 Census of Production, will provide a basis for testing this theory.

5. The Census of Distribution does not provide regional net output figures, but figures of turnover per person engaged in retail trade can be used as a rough measure of output per head. The data for 1957 and 1961 show that turnover

[1] 83 per cent in 1954; 72 per cent in 1958.

per person employed[1] in retailing in the North West was about 93 per cent of the average for Great Britain in both years. Again, this suggests relatively low productivity, but growth at about the national rate. Low turnover per person employed in the North West may be associated with the region's large number of retail outlets. There were nearly 92,000 retail establishments in the North West in 1961 or one for every 72 people living in the region (compared with a national average of 88 people per shop). Sales per shop averaged just under £12,000 in the North West, and this was also the lowest figure for any of the regions[2]. In other words, shops in the North West tend to be more numerous, but smaller, than in Britain as a whole.

INCOMES AND EARNINGS

6. Such information as is available suggests that below-average output per head in the North West may be reflected in incomes and earnings which are slightly less than the average for the United Kingdom. The most comprehensive data of income per head are the Inland Revenue figures of employment income and total net income before tax. These are given in Table 10.

Table 10 **Income per tax unit in the North West as a percentage of income per tax unit in the United Kingdom**

	Employment income	*Total net income*
1949/50	97	95
1954/55	98	98
1959/60	96	97

NOTE: These statistics omit Civil Servants and Seamen. About 7 per cent of total income is also omitted, including national assistance and national insurance benefits and incomes too small to be reviewed for tax purposes. A married couple is regarded as one "tax unit", as is a single (or widowed) man or woman.

Total net income includes "unearned" income from dividends, pensions etc., and the figures for employment income therefore give a better indication of incomes derived from work in the region. They suggest that incomes in the North West were slightly below the average for the United Kingdom in the fifties and did not move significantly in relation to it.

7. The Census of Production for 1958 also provides some information about average earnings per employee in manufacturing industry, which in the North West in that year amounted to just under 97 per cent of the average for Great Britain. This corresponds quite closely with the Ministry of Labour's figures of earnings of male manual workers which show average weekly earnings in the North West ranging between 96·5 and 97·5 per cent of the United Kingdom average in the period of 1960-63.

8. It is relevant in considering all these figures that the high level of earnings in London (which at least in part reflects higher living costs there) has a considerahle influence on the national average. For example, if the Inland Revenue figures for 1959-60 are reworked with the London and South Eastern region omitted, then average employment income in the North West is almost exactly the same as the remaining "national average." No information about regional differences in price levels is available and it is therefore impossible to say how *real* incomes in the North West compare with those in other parts of Britain.

9. These figures relating to the North West as a whole may well conceal considerable differences in the level of earnings between various parts of the region. For example, the Census of Production in 1958 showed that average earnings in the textile industry in Great Britain were only about 80 per cent of the national average for all manufacturing industries. Average earnings in those parts of the North West where the cotton industry is predominant have therefore probably been substantially below the regional, as well as the national, average. Conversely, earnings in other parts of the region may have compared much more favourably with the national average.

10. However, it appears that in the region as a whole (and perhaps especially in the cotton towns) there has been a tendency for any shortfall in the general level of earnings hy comparison with the national average to be compensated for by the fact that a higher proportion of the North West's total population has heen at work. The Household Expenditure Survey for 1953-54 showed that, although household incomes in the

[1] The self-employed are included in this calculation.
[2] See Table 38 in the Statistical Appendix.

North West (including "unearned" income) divided by the number of workers in the household were on average about 4 per cent *below* the level for Great Britain, average household incomes and household incomes per person were both about 1 per cent *above* the average for the country as a whole.

11. But the employment trends of recent years seem to have brought about an interesting change in the North West's relative position. Family expenditure survey data for 1961-63 showed that since 1953-54 the median income of heads of households in the North West had increased slightly faster than the national average and had almost overtaken it. At the same time, the survey showed that income per household and income per person had fallen behind the national average and by 1961-63 they were respectively 3 and 4 per cent below it.

ACTIVITY RATES

12. In addition, figures for activity rates provide direct evidence that the proportion of the North West's total population who are at work as employees is no longer so much higher than the average for Great Britain as it used to be. Nevertheless, as Table 11 shows, activity rates[1] in the region remain well above the national average.

Table 11 Activity rates in the North West as a percentage of those for Great Britain

	1953	1963
Males		
Aged 15-24	118	108
25-44	102	103
45-64	104	101
65 and over	93	97
Females		
Aged 15-24	108	106
25-44	123	107
45-59	115	110
60 and over	114	100

The activity rate in the North West for men over the age of 15 averaged about 80 per cent between 1953 and 1963, and that for women over 15 nearly 42 per cent. The corresponding figures for Great Britain were 77 per cent for men and 37 per cent for women. Since the self-employed are excluded from these activity rate calculations, the higher figures for the North West cannot be taken as giving a precise measure of the extent to which a larger proportion of the region's population of working age has, in fact, been at work. But in any case the differential between the regional and national activity rates for women is so wide that there can be no doubt at all that it has been a good deal more common for women to go out to work in the North West than it has in the country as a whole. Moreover, figures derived from the 1961 Census show that even when account is taken of the self-employed, the "economically active" section of the population in the North West in that year was relatively larger than in any region except the West Midlands.

13. The differentials between activity rates for the North West and for Great Britain have gradually been becoming smaller in recent years. The activity rate for men over the age of 15 in the North West remained fairly constant between 1953 and 1958, while it was tending to increase gradually in Great Britain; between 1958 and 1963 both the regional and the national rate fell, but the fall in the North West was more marked. The relative decline in the North West was largely confined to two age groups—15-24 (where it is possible that part of the explanation may lie in the fact that the North West has been catching up in recent years with the national average in the proportion of its young people staying in full time education beyond the school-leaving age) and 45-64 (where the activity rate has been rising nationally, but has remained stationary in the North West).

14. For women, the contraction of cotton, and to a lesser extent of the clothing industry, was clearly the main reason for the sharper relative decline in the North West's activity rate. The over-15 rate in the region tended to increase in line with the national average from 1953 to 1957, but then fell again slightly, while the national rate continued to increase. The North West lost ground in all age groups, but most noticeably in the 25-44 group. In 1953 the activity rate for women was higher in the North West than in any other region of Britain; by 1963 the North West's rate was still one of the highest but was

[1] The "activity rate" is here taken to mean the number of employees—both employed and unemployed—in a particular age group expressed as a percentage of the total home population in that age group. More detailed figures for the North West are shown in Tables 31-33 of the Statistical Appendix.

lower than that in the West Midlands and the three South East regions.

EMPLOYMENT FOR WOMEN

15. Between 1953 and 1963, the character of female employment in the North West changed very considerably. In 1953, 52 per cent of women workers were engaged in manufacturing industry; and just under 47 per cent in service industries.[1] In 1963, only 43 per cent of women workers were employed in manufacturing and 56 per cent were in services. Employment in manufacturing for women had fallen by nearly 14½ per cent (about 80,000 jobs) compared with a national increase of 2 per cent. There were 95,000 less women employed in the textile industry alone and 10,500 less in clothing and footwear. An additional 96,000 women were employed in services—an increase of nearly 19 per cent over the decade, compared with the national average of 22 per cent. Nearly 44,000 extra women were employed in the distributive trades; just over 48,000 more in professional and scientific services; and nearly 10,000 more in insurance, banking and finance.

16. This change in the character of employment for women in the North West seems likely to continue for some time yet. Any further fall in employment in textiles is likely to affect women more than men—indeed if past trends continue, roughly two jobs for women will be lost for every one for a man. (In any case, about one fifth of the women employed in the cotton industry are now over 55 and the industry has found it difficult to recruit younger women in recent years.) At the same time employment for women in services is likely to go on growing.

MALE EMPLOYMENT

17. No such striking change has taken place in the character of employment for men in the North West. Between 1953 and 1963 manufacturing's share in total male employment remained almost unchanged at about 48 per cent, while the share of services (excluding construction) grew only from about 38½ per cent to nearly 40 per cent. Employment for men in manufacturing increased by 2·8 per cent (compared with the average for Great Britain of 10·6 per cent) and in services by 3·2 per cent (where the average for Great Britain was 9·2 per cent). There have, of course, been substantial changes within these groups: in particular the engineering, vehicles, and paper industries, the distributive trades, and professional and scientific and miscellaneous services have grown, while the textile and ship-building industries, coal mining and transport and communications have declined.

INCOME PER HEAD

18. There is therefore some evidence which suggests that, on average, families living in the North West have slightly smaller money incomes than those in Britain generally, and that rather more members of the population are at work in the region than in the country as a whole. And there are clear signs that average income per head of total population is not increasing as rapidly in the North West as nationally. The evidence of the Family Expenditure Survey confirms what in any case might have been suspected. For the working population has grown more slowly than total population and activity rates have tended to decline relative to the national average. At the same time incomes and earnings certainly do not seem to have increased much faster in the North West than in Britain generally.

19. On the other hand, the very fragmentary evidence which is available about expenditure in the region does not appear to show much sign of sluggish growth. Certainly, the Family Expenditure Survey showed the average expenditure of households in the North West to be slightly below the national average in 1961-63, whereas it had been slightly above in 1953-54. But in retailing (which accounts for about a half of personal expenditure), turnover per head of population in the North West seems to have increased faster than the average for Great Britain: in 1957 turnover per head in the North West was only 90 per cent of the figure for Great Britain as a whole but by 1961 it had risen to nearly 94 per cent. As far as car ownership is concerned, there was one car for every sixteen adults in the North West in 1954 and one for every twelve adults in Britain; by 1963 there was one car for every seven adults in the region and one for every five and a half nationally. Further research into the relationship between income growth and expenditure patterns in the North West might well be worth undertaking.

[1] Excluding construction, where women form a very small part of the labour force.

6 Employment prospects

Chapter 3 has shown that if there were to be no further net migration away from the North West, the region's population might increase by about 930,000 between 1964 and 1981. Even if net outward migration were to continue over that period at the same rate as was experienced in 1956-64, the North West's population might increase by nearly 800,000. The growth of employment in the region will be one of the major factors determining the extent to which the North West will be able to hold the natural increase in its population. If employment opportunities fail to expand as rapidly as the increase in the region's labour force, the level of unemployment in the North West is likely to be persistently higher than the average in the country as a whole, and net outward migration will reappear, and may even accelerate, as workers seek jobs elsewhere. (Even if full employment were maintained in the North West, other factors—housing conditions for example—might lead to outward migration. The region's housing problems and the need for improving its general environment are considered later in Part Five of this report).

2. The purpose of this chapter is therefore to try to look ahead in order to see whether on existing trends population growth and employment growth are likely to be in balance in the North West over the next fifteen years or so. In the present state of knowledge and techniques an exercise of this kind cannot be expected to provide other than very tentative conclusions, but certain specific qualifications need to be made. The population and migration assumptions and the projection of employees in the North West used in this chapter are provisional and should not be regarded as official. Much work is currently being done on population and employment forecasting, particularly in connection with the preparation of the National Economic Plan. In due course, official projections, together with the assumptions on which they have been based, will be published. Meanwhile, however, it has not been possible to wait for these later data and less reliable data have had to be used.

3. The calculations presented in this chapter should not be regarded as in any way forecasts of what is likely to happen in the North West. They are merely intended to show what consequences would follow from various hypotheses about the region's future economic development. The preparation of the National Economic Plan and the outcome of any detailed consultations which the North West Economic Planning Council and Board may wish to have with firms and industrial organisations in the region may at a later stage enable a judgment to be made as to which of these hypotheses is most likely to provide an accurate forecast of events.

MANPOWER RESOURCES

4. The increase in the number of people seeking work in the North West in the period up to 1981 will naturally be considerably less than the growth in the total population. The first step in estimating the likely growth in the supply of labour in the region is to calculate what changes are likely to occur in the age and sex distribution of the population. It is then necessary to make assumptions about the proportion of the population aged 15 and over who will actually be available for employment at various points in the future.

5. As Table 12 shows, in 1963 the North West's population included 2·38 million men aged fifteen and over and 2·71 million women in that age group.

Table 12 Home Population in the North West, aged 15 years and over

	Actual	Projected increases over 1963 (Thousands)			
		With Migration		Without Migration	
	1963	1971	1981	1971	1981
Males	2,383	+43	+124	+ 99	+289
Females	2,711	−27	+ 6	+ 60	+216
Total	5,094	+16	+130	+159	+505

If it could be assumed that migration would have no effect on the North West's population after 1963[1], there would probably be an increase of almost 160,000 by 1971 in the number of people aged fifteen or over living in the region—almost 100,000 men, but only about 60,000 women. Between 1971 and 1981, there would be much bigger increases, of about 190,000 men, and just over 155,000 women. On the other hand, if net migration away from the North West continued, the increases to be expected in the population of working age would naturally be smaller. If the migrationary trends which occurred in the inter-censal period 1951-61 continued throughout the years between 1961 and 1981, the number of men over 15 living in the North West would be likely to increase by less than 45,000 between 1963 and 1971 and only by about a further 80,000 between 1971 and 1981; while the number of women over 15 would probably actually fall by over 25,000 between 1963 and 1971 and increase by only a little over 30,000 between 1971 and 1981 (or in other words the number of women aged 15 or over in the North West would be virtually the same in 1981 as in 1963)[2].

6. In 1963, 79·2 per cent of men aged fifteen and over in the North West were actually in employment[3] or were registered as unemployed. The comparable figure for women was 41·2 per cent. Both for men and for women these activity rates were a good deal higher than the rates for Great Britain as a whole, but in both cases the differential between the regional and national figures had narrowed considerably since 1951. The Ministry of Labour has found that there is evidence that migration between regions is a prime cause of changes in regional differentials in activity rates, with outward migration leading to decline relative to the national average in the region affected. Account has been taken of this fact in making assumptions about the future behaviour of activity rates in the North West.

7. It has been assumed, firstly, that if the North West were to be unaffected by migration after 1963, activity rates in the region would continue to be above the national average throughout the period up to 1981 by the same amount as they were in 1963. (In other words, the assumption is that there would be no further change in the differentials between regional and national activity rates after 1963.) At the other extreme, it has been assumed that if the North West continues to be affected by the migrationary trends of 1951-61, activity rates in the region will continue to decline relative to the national average at the same pace as they did between 1951 and 1961. Finally, a third projection has been made, based on the population figures which provide for continued migration, but using the activity rates which assume no further change in regional differentials. Thus three projections of the supply of labour in the North West have been made in all, on the following bases:

Projection A—No migration after 1963, and no change in the differentials between regional and national activity rates after 1963.

Projection B—Migration trends continue as in 1951-61, but no change in the activity rate differentials after 1963.

Projection C—Both migration and trends in activity rate differentials continue as in 1951-61.

All three projections have made use of figures for future national activity rates calculated on the

[1] This assumption implies not only that there would have to be no net gain or loss of population to the North West after 1963 as a result of migration to or from other regions or countries, but also that any gross movements which took place would have absolutely no effect on the age and sex structure of the region's population.

[2] The migration assumption used in these calculations is not the same as that used in Chapter 3, and its effect is to produce a high figure for future migration. The projections in this chapter and those described in Chapter 3 are not therefore comparable.

[3] "Employment" here means employment as employees. Employers, the self-employed and members of H.M. Forces are excluded.

basis of the official projections of the working population which were published in the Ministry of Labour Gazette for January, 1965.

8. The results of these projections are summarised in Table 13. Projection A suggests that if the North West was unaffected by migration after 1963, the supply of labour in the region might increase by nearly 75,000 in the period 1963-71 and by about a further 150,000 between 1971 and 1981. On the other hand, Projection C shows that if migrationary trends continued and activity rates in the North West went on declining relative to those in Great Britain, there might be a fall of 100,000 in the region's labour force between 1963 and 1971 and a further decline of about 110,000 between 1971 and 1981. The intermediate set of assumptions used in Projection B (continued migrationary trends, but no further change in activity rate differentials) produce a slight fall in the labour supply in the North West between 1963 and 1971 and a slight increase between 1971 and 1981, the net result of which would be to leave the position in 1981 virtually unchanged from that in 1963. All three sets of projections suggest that the number of women seeking employment in the North West may increase less (or decline more) than the number of men, especially in the immediate future. Even the projection which assumes that the North West will be unaffected by migration in future produces an increase of only 20,000 in the number of females available for employment between 1963 and 1971 (compared with nearly 55,000 males) and a further increase of just under 65,000 between 1971 and 1981 (compared with nearly 85,000 males).

9. Quite apart from the general cautions given in paragraph 2 above, two additional qualifications need to be kept in mind in relation to these figures. Firstly, they are very sensitive to the activity rate assumptions on which they are based. If actual activity rates in the North West in 1971 differed by only half a percentage point from those which have been assumed, then the region's labour force would be about 25,000 larger (or smaller) than these projections show. Secondly, these figures are for changes in the number of *employees* in the North West. They do not take into account possible changes in the numbers of self-employed in the region.

10. Moreover, projections which show the possible increase in employee numbers in the North West, whatever the basis of calculation, understate the growth in employment which would be required in order to make full use of the region's labour resources, to the extent that certain parts of the region (especially Merseyside) have high unemployment at present.

EMPLOYMENT GROWTH

11. Chapter 4 showed that between 1953 and 1963, employment as a whole increased by only 1·8 per cent in the North West. Employment in the services sector increased by just over 10 per cent, but in manufacturing it fell by 4 per cent and in the relatively unimportant extractive industries it fell by nearly one third.

12. If total employment continued to grow as slowly as this in future, less than 47,000 additional jobs would be provided in the North West between 1963 and 1971 and only about another 60,000 between 1971 and 1981. Growth on this scale would almost certainly not match the natural increase in the region's manpower resources, particularly after 1971. The likely out-

Table 13 **Projections of the numbers of employees in the North West**

Thousands

	Actual 1963	*Projected increases over 1963* 1971 *Without Migration*	*With Migration*		1981 *Without Migration*	*With Migration*	
		A	*B*	*C*	*A*	*B*	*C*
Males	1,887	+54	+ 9	− 52	+138	+11	−113
Females	1,116	+20	−15	− 48	+ 84	− 2	− 98
Total	3,003	+74	− 6	−100	+222	+ 9	−211

come would therefore be a continuing loss of population as a result of migration (though perhaps at a rate below that which applied in 1951-61), or unemployment in the North West at rates well above the national average, or both.

13. However, between 1953 and 1963 the structure of employment in the North West changed considerably, with the decline of the textile industry and other traditional forms of employment and the development of new industries and services. As a result, the region's employment base appeared to be rather sounder in 1963 than it had been ten years earlier. Employment growth was faster in the later years of this period than in the early 1950s: the four years 1959-63 produced an increase of 1·2 per cent in total employment, as compared with only 0·5 per cent in the six years 1953-59. If total employment continued to increase at the 1959-63 rate, about 70,000 additional jobs would arise in the North West between 1963 and 1971 and about a further 90,000 between 1971 and 1981. Growth on this scale would approach very much closer to the potential natural increase in the region's manpower resources in the period up to 1971, but would probably not be sufficient also to solve its unemployment problem. (In practice, of course, unemployment would almost certainly be reduced; but some net outward migration would continue.) And in the 1970s the potential natural increase in the region's labour supply would again be likely to outstrip the growth in employment opportunities.

14. However, even in the period 1959-63 sharp contraction in the scale of certain industries in the North West (for example textiles, shipbuilding, mining, and transport and communications) was tending to conceal the amount of growth taking place in other sectors of the region's economy. If the rates of growth or decline which applied in individual industrial Orders in the North West in 1959-63 are projected into the future the results are as shown in Table 14. The increase in total employment between 1963 and 1971 would be nearly 190,000. Similarly, the further increase in total employment between 1971 and 1981 which would result from a projection of this kind would be considerably in excess of any likely growth in the region's labour resources.

15. Finally, the results of an alternative projection of employment by individual Orders is shown in Table 15. This is founded on a very tentative forecast of trends in Great Britain as a whole up to 1971[1] which, as a counter balance to the projection described in paragraph 14, (which is based on an assumption favourable to employment growth in the North West) has been based on an unfavourable assumption—that the same absolute gap between the growth rates of individual Orders in the North West and Great Britain will apply in 1963-71 as in 1959-63[2]. Such a projection produces a decline in employment in the North West of about 60,000 between 1963 and 1971.

16. The very wide range of results produced by these various projections illustrates the great difficulty of producing employment forecasts for the North West which will be of any value as a basis for future physical planning. Knowledge of industrial prospects in the North West can be used to a limited extent to supplement the results of pure arithmetic. For example it seems unlikely that a further decline in employment in textiles on the scale implied by the projections described in paragraphs 14 and 15 will in fact occur. But it is essential that more attention should be given to this problem of forecasting. Investment in housing and other forms of social capital is very long-term. If it is not to prove extremely wasteful, there must be some assurance that the population growth which it is planned to meet will also be supported by employment growth on an adequate scale.

DISTRIBUTION WITHIN THE REGION

17. Even if total employment growth in the North West as a whole proves to be satisfactory, its geographical distribution within the region may give rise to difficulties. More than half the natural increase in the population of working age in the North West between 1961 and 1981 is likely to originate on Merseyside, which is also

[1] This forecast is based on the projection of 1953-63 trends in employment for each S.I.C. Order, modified to take account of likely developments affecting output and productivity, and further adjusted downwards so that in total it balances the estimated total supply of labour in Great Britain in 1971.

[2] This method of projecting regional employment growth was found to be the most accurate of several which were tested on past figures, but it should not be regarded as producing reliable forecasts for the future in the case of individual Orders.

the area most in need of additional jobs to bring unemployment down to an acceptable level.

18. The information available about the extent of industrial movement in the North West in the post-war period is not comprehensive. Administration of the industrial development certificate control has given the Board of Trade complete knowledge of developments in manufacturing industry taking place in, or originating in, the North West and requiring new buildings over 5,000 square feet in area. The Board also know of most moves into existing buildings in the region which have been made by manufacturing firms. However, although information about manufacturing industry is thus fairly exhaustive, nothing systematic is known at all about movements affecting employment in the service industries.

19. According to the Board of Trade's information between 1945 and 1963 nearly 250 moves took place affecting manufacturing industry already located in the North West, and 185 firms moved into the region from outside it. Of the moves originating within the region, nearly 100 were to other parts of the North West and these involved about 25,000 jobs; the other 150 were to places outside the region and these involved about 28,000 jobs. The moves into the region from outside it brought about 100,000 jobs to the North West, 96,000 of them to areas of high unemployment. 70 of the moves taking place within the North West and over 120 of the moves into the region were made into existing buildings and these involved about 60,000 jobs.

20. This information is not easy to interpret, but it suggests that mobility of employment in the

Table 14 **Projection of 1959-63 Employment Trends by individual orders in the North West**

	Number employed 1963 (000*s*)	*Average annual growth rate* 1959-63 (%)	*Projected employment* 1971 (000*s*)
Agriculture, Forestry and Fishing	24·0	−2·5	20·0
Mining and Quarrying	44·9	−6·9	25·0
TOTAL EXTRACTIVE INDUSTRIES	68·9	−5·5	45·0
Food, Drink and Tobacco	126·2	+0·3	130·0
Chemicals and Allied Industries	122·3	−1·4	109·0
Metal Manufacture	37·6	−2·4	1·0
Engineering, Electrical Goods and Metal Goods	344·3	+2·3	413·0
Shipbuilding and Marine Engineering	30·6	−6·4	18·0
Vehicles	114·6	+3·0	145·0
Textiles	234·9	−5·8	145·0
Leather, Leather Goods and Fur	9·7	−2·2	8·0
Clothing and Footwear	99·1	−0·1	98·0
Bricks, Pottery, Glass, Cement, etc.	46·0	+0·7	49·0
Timber, Furniture, etc.	30·2	+0·8	32·0
Paper, Printing and Publishing	88·0	+2·6	108·0
Other Manufacturing Industries	58·1	+1·2	64·0
TOTAL MANUFACTURING INDUSTRIES	1,341·6	−0·5	1,350·0
Construction	174·7	+2·8	218·0
Gas, Electricity and Water	48·5	+0·3	50·0
Transport and Communications	229·4	−1·5	203·0
Distributive Trades	379·1	+0·9	407·0
Insurance, Banking and Finance	62·4	+2·9	78·0
Professional and Scientific Services	261·5	+4·5	371·0
Miscellaneous Services	220·0	+0·3	225·0
Public Administration	143·5	+2·2	171·0
TOTAL SERVICE INDUSTRIES	1,519·1	+1·2	1,723·0
TOTAL ALL INDUSTRIES AND SERVICES	2,929·6	+0·3	3,118·0

North West may be fairly limited. Over an eighteen year period, moves into the region or originating in it affected only about 150,000 manufacturing jobs in all. Some of this employment went to places outside the region; some two-thirds of it was brought to areas of high unemployment in the North West where financial inducements to development were available; some was involved in moves over very short distances within the region; and some was involved in moves influenced by the availability of existing (frequently cheap) premises.

Table 15 Alternative projection of employment growth by individual orders in the North West

	Employment in the North West 1963 (000*s*)	*Annual average growth rate* 1959-63 *G.B.* %	*N.W.*	*Assumed annual growth rate* 1963-71 *G.B.* %	*N.W.*	*Projected employment in the North West* 1971 (000*s*)
Agriculture, Forestry and Fishing	24·0	−3·6	−2·5	−3·7	−2·6	19·5
Mining and Quarrying	44·9	−4·8	−6·9	−4·1	−6·2	27·0
Food, Drink and Tobacco	126·2	+0·8	+0·3	−0·3	−0·8	118·0
Chemicals and Allied Industries	122·3	−0·2	−1·4	−1·0	−2·2	102·5
Metal Manufacture	37·6	+0·8	−2·4	−0·3	−3·5	28·0
Engineering, Electrical Goods and Metal Goods	344·3	+2·6	+2·3	+1·5	+1·2	379·0
Shipbuilding and Marine Engineering	30·6	−5·6	−6·4	−2·2	−3·0	24·0
Vehicles	114·6	+0·2	+3·0	−0·4	+2·4	138·0
Textiles	234·9	−1·9	−5·8	−1·3	−5·2	153·0
Leather, Leather Goods and Fur	9·7	−0·5	−2·2	−1·3	−3·0	7·5
Clothing and Footwear	99·1	−0·2	−0·1	−1·1	−1·0	91·5
Bricks, Pottery, Glass, Cement, etc.	46·0	+1·1	+0·7	+0·4	0	46·0
Timber, Furniture, etc.	30·2	+0·1	+0·8	−0·3	+0·4	31·0
Paper, Printing and Publishing	88·0	+2·2	+2·6	+0·6	+1·0	95·5
Other Manufacturing Industries	58·1	+2·5	+1·2	+1·4	+0·1	58·5
Construction	174·7	+2·8	+2·8	+0·9	+0·9	188·0
Gas, Electricity and Water	48·5	+1·5	+0·3	+0·2	−1·0	44·5
Transport and Communications	229·4	−0·3	−1·5	−1·6	−2·8	183·0
Distributive Trades	379·1	+1·9	+0·9	+0·9	−0·1	376·0
Insurance, Banking and Finance	62·4	+3·4	+2·9	+2·4	+1·9	72·5
Professional and Scientific Services	261·5	+3·7	+4·5	+1·9	+2·7	321·5
Miscellaneous Services	220·0	+1·4	+0·3	+0·8	−0·3	214·0
Public Administration	143·5	+1·9	+2·2	+0·5	+0·8	153·0
TOTAL ALL INDUSTRIES AND SERVICES	2,929·6	+1·1	+0·3	+0·4	−0·3	2,871·5

Part Four

Transport

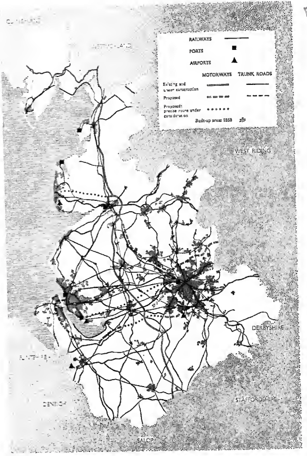

Fig. 20. Communications
The railways shown are those in use, and the road proposals those approved or under consideration, at mid-1965

7 The Region's transport network

The transport network in the North West has to cater for heavy and complex traffic flows. The region itself, with its densely populated urban areas and its highly developed industrial hase, generates huge and growing transport demands. In addition, the region contains two of the principal national ports, and the main national trunk routes, hoth road and rail, leading from the south towards Scotland, run through the length of the region. (See Figure 20.)

2. National and regional transport needs interact closely on one another in the North West and neither can he planned for in isolation. The North West has henefited considerahly in recent years from major transport schemes which have been carried out as part of a programme designed to improve the national system. Further schemes are now either in progress or in an advanced stage of planning, and will he completed by the early 1970s. Expenditure on other improvements, which have a regional rather than a national significance, bas also heen growing steadily in the past few years and is planned to go on increasing in the years ahead.

3. The North West's transport network is gradually being transformed and this process will both improve the region's economic efficiency and prospects, and also create new opportunities for development to meet its population and industrial growth. But even a sustained programme of heavy investment, such as is already planned for the next few years, will not remove all the deficiencies in the North West's transport infrastructure. After the main features of the region's existing network and of the planned developments already in the programme have heen described in this Chapter, therefore, the next goes on to try to identify the outstanding needs which will remain to be met as more resources become availahle.

ROAD AND RAIL

4. The M6 motorway and the main West Coast railway line from London to Scotland together form the major North-South axis of the region. Both follow the same general route through the centre of the region, passing midway between Liverpool and Manchester, and serving Crewe, Warrington, Wigan, Preston and Lancaster.

5. The M6 is already complete from Carnforth near the region's northern houndary right through to south of Stafford in the West Midlands. This section of 110 miles is the longest unhroken stretch of motorway as yet in use in this country and it has hrought ahout a dramatic improvement in road communications in the North West. But at present its southern end connects only with congested trunk roads in the Birmingham area and access to the M1 to London, and the M5 and M50 leading towards Bristol, the South West and South Wales, remains difficult. Until the Midland links joining up these motorways are completed, the North West will still not feel the full benefit from the investment whicb has been made in the M6. Work on the Midland links is being pressed abead as rapidly as possible, hut given the added difficulties of planning and land acquisition in an area whicb is already huilt up, it will he the early 1970's before the gaps are finally closed.

6. By then, the M6 will have been extended northwards via Kendal, Penrith and Carlisle to join up with the A74 road to Glasgow which will have been improved to dual-carriageway standard throughout its length. This will bring ahout a suhstantial improvement in the North West's links with Scotland.

7. The West Coast railway line is at present being electrified between London and Man-

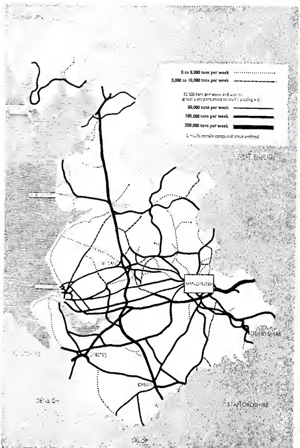

Fig. 21. British Rail: density of freight traffic, 1961

Derived from "The Reshaping of British Railways" by permission of the British Railways Board. The map shows the pattern of Traffic in 1961 and thus some lines which have since been closed are included

chester and Liverpool. Work on this major project is nearing completion and considerable improvements in the North West's rail services to the Midlands and South will result. From April 1966 the journey from Manchester or Liverpool to Euston will take not much more than $2\frac{1}{2}$ hours, which is about an hour quicker than on the fastest trains at present. Freight services in the North West are being improved by the introduction of modern handling methods in specialised goods depots, and it is hoped that liner trains serving Manchester and Liverpool and providing guaranteed overnight delivery of goods to and from London and Glasgow will be brought into operation by about the end of this year. The British Railways Board propose to develop the West Coast line as their main trunk route connecting London and Glasgow.

8. The main East-West road and rail routes across the Pennines are those connecting the Manchester and Liverpool conurbations with the West Riding towns and the Humber. The East Lancashire Road (A580) from Liverpool to Manchester has recently been converted to dual carriageway throughout most of its length. But the existing trunk roads eastwards from Manchester—the A62 to Huddersfield, Leeds and Bradford and the A57/A628 to Sheffield and other south Yorkshire towns—are not generally of a very high standard. The construction of the proposed Lancashire-Yorkshire motorway, on which advanced works are expected to begin within the next two years, will therefore bring the two densely populated areas of the Mersey division and the West Riding into much closer contact by road than ever before. It will also provide the North West with rapid connections to the A1, the M1 and the North East. It will follow a line running between Bolton, Bury and Rochdale to the north and Salford, Manchester and Oldham to the south and will be connected to the East Lancashire Road as a link to Liverpool. Some improvements to the A57/A628 cross-Pennine route to Sheffield are also included in the road programme for the next few years.

9. At present there are two rail routes connecting Manchester with Leeds and two between Manchester and Sheffield; and no fewer than five lines run between Manchester and Liverpool. As Figure 21 shows, the main cross-Pennine routes are particularly important for the carriage of freight—for example an average of 170,000 tons of goods traffic travels each week on the electrified Manchester-Sheffield line via Penistone. The Railways Board expect there to be considerable growth in cross-Pennine traffic in the years ahead, and in order to cater for it they propose to develop two of the existing routes (Manchester-Sheffield via Penistone, and Manchester-Rochdale-Leeds-Hull, with a link to Preston) together with two of the lines between Manchester and Liverpool (those via Warrington and St. Helens Junction).

10. Within the region, a dense network of roads and railways links the main towns and provides connections with the national system. Traffic flows both by road and rail tend to converge on the two conurbations, and Preston is also an important nodal point (See Figures 21, 22 and 23).

11. Altogether forty-four road improvement schemes each costing over £$\frac{1}{4}$ million are scheduled to be carried out in the North West in the course of existing programmes. Perhaps the most important is the proposed replacement of the present Manchester-Preston trunk road (A6) by a motorway following the same general line, but running a mile or two to the east. This should be completed by the early 1970s and will give the Preston area swift access to the Lancashire-Yorkshire motorway, as well as a greatly improved road link with Manchester. It is also proposed to replace the Liverpool-Preston road (A59) which is already a dual carriageway for some of its length; there are already in the road programme schemes for the improvement of its continuation which leads on from Preston into North East Lancashire and eventually into the West Riding. Manchester will be provided with better access to the M6 to the South West by the construction of another new motorway, which will eventually be extended to become an East-West Cheshire motorway stretching across Northern Cheshire towards North Wales. And the southern approaches to Liverpool, which have already benefited from the construction of the Runcorn-Widnes road bridge opened in 1961, will be further improved by the completion by about 1970 of a new trunk road (which may take the form of a motorway) running down the centre of the Wirral and connecting with the second Mersey tunnel.

12. Local rail services into the two conurbations play a particularly important part in carrying

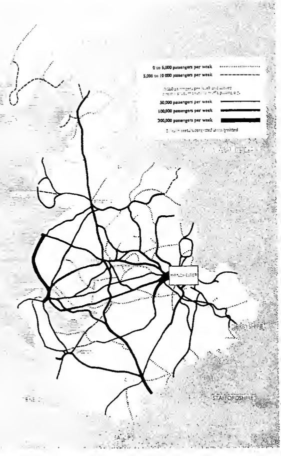

Fig. 22. British Rail: density of passenger traffic, 1961

Derived from "The Reshaping of British Railways" by permission of the British Railways Board. The map shows the pattern of traffic in 1961 and thus covers some services which have since been withdrawn

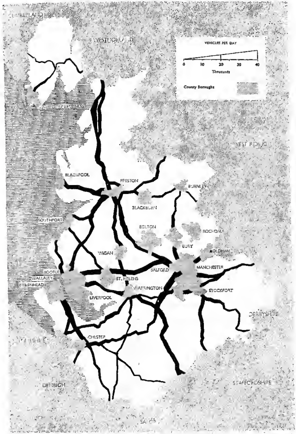

Fig. 23. Trunk roads: density of traffic, 1961

Compiled from the latest complete Trunk Road Traffic Census taken by the Ministry of Transport. The volume of traffic (represented by the width of the lines) is the average for a 16-hour day over the period 21st-27th August, 1961 (i.e. prior to the opening of most sections of motorway)

commuter traffic. Over the post-war period there has been a great increase in the extent of travel to work into and within the conurbations. This trend seems bound to continue, as more houses are built in suburban areas and more workers are attracted to the two cities by the wide range of employment opportunities available in their highly diversified economies. But many of these commuter lines do not pay their way and the Report on the Reshaping of British Railways proposed that services should be withdrawn from some of them. It has already been announced that certain of these proposals (for example those affecting the Manchester-Buxton, Manchester-Bury via Prestwich and Liverpool-Southport lines) are not to be proceeded with at present. The future of other similar lines will have to be considered with particular care, especially where the financial losses at present being made are substantial.

13. In addition to goods transport facilities by road and rail the region will also be connected to the South East via the main refined petroleum transport pipeline and the methane gas distribution pipeline. There is also a highly developed pipeline complex within the south west part of the region.

CIVIL AVIATION

14. The major airports in the North West are at Manchester and Liverpool. (See Figure 24.) Both are owned and operated by the respective City Councils, but the Ministry of Aviation provides technical services. Manchester is one of the three transatlantic terminals in Great Britain (the others are London and Prestwick) and has some regular services to the principal European centres. There are also frequent flights to London and other destinations within the country. The airport is served by British European Airways, British Overseas Airways, a number of independent British airlines and several foreign airlines. It was used in 1964 by nearly 1¼ million terminal passengers. Traffic at Liverpool in 1964 was at rather more than a quarter of Manchester's rate with just over 350,000 terminal passengers. It is served by several British independent airlines and by Aer Lingus and provides regular flights to London, other British centres, the Irish Republic, Ostend and Rotterdam.

15. Regular air services on domestic routes are also provided by independent British airlines from the municipally-owned airport at Blackpool and Hawker Siddeley Aviation's aerodrome at Hawarden, near Chester. Blackpool is used particularly for travel to the Isle of Man, and served over 150,000 terminal passengers in 1964; traffic at Hawarden is on a much smaller scale, but there were nearly 14,000 terminal passengers in 1964. There are also a number of smaller aerodromes and landing strips in the North West which are used by industry, including those at Barrow (on Walney Island), near Preston (Warton and Samlesbury) and near Macclesfield (Woodford), but these do not provide public services.

16. Further improvements to the facilities available at Manchester, Liverpool and Blackpool airports are planned to be carried out in the next few years. It is proposed to extend the length of the main runway at Manchester to 9,000 feet in order to make it suitable for the largest projected transatlantic aircraft. At Liverpool a new runway of 7,500 feet is being built and this will be capable of extension to 10,500 feet; new terminal buildings are also to be provided. And at Blackpool, the terminal facilities are to be extended and air traffic control equipment is to be improved.

PORTS

17. The North West's two major ports—Liverpool and Manchester—are of national as well as regional significance. Liverpool is the second port in Britain and the only one which approaches London in the scale of its activities—it handles nearly a quarter by value of the country's trade whereas London handles about a third. Indeed, for export traffic Liverpool is perhaps rather more important even than London. Manchester consists in effect of dock installations spread out along the whole 35-mile length of the Ship Canal from the south side of the Mersey Estuary to Salford. In contrast to Liverpool it is to a large extent used for import traffic and has a particularly valuable function in enabling bulk commodities to be brought direct to the industrial developments along the Canal's banks and into the centre of the conurbation itself. It is also important for the shipment of refined products out from the important oil refinery at Stanlow.

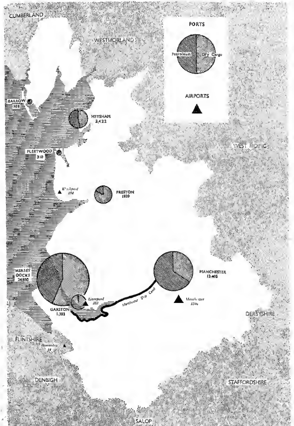

Fig. 24. Ports and airports: traffic

The total inward and outward cargo handled in 1963, in thousands of tons, is given in figures under the name of each port; it is represented by the area of the circles the sectors of which indicate the proportion accounted for by petroleum and dry cargo. The number of terminal air passeogers in 1964, in thousands, is given in figures under the name of each airport

Both Liverpool and Manchester have carried out major extension schemes in the post-war period. A new river entrance to the North Liverpool docks including the provision of seven new berths, was completed in 1964 at a cost of over £20 millions: while the Queen Elizabeth Dock at the western end of the Manchester Ship Canal at Eastham was completed in 1953 at a cost of £5½ millions.

18. The immediate hinterland of these two ports consists of the North West region itself, North Wales, the North West Midlands and, to some extent, Yorkshire and the North East. It is the requirements of this area, second in size of population only to the immediate hinterland of the Port of London, that form the base load of the Mersey ports. Moreover, Liverpool's special importance for some trades (for example, that with West Africa) is such as to draw traffic to it from all over Great Britain.

19. There are also a number of smaller ports in the North West, of which the most important are Preston, Heysham, Fleetwood and Barrow. Preston has expanded rapidly in recent years and, together with Heysham, it handles a good deal of traffic with Northern Ireland. Fleetwood is the only fishing port of significance in the North West; there has been some decline in the size of the local fleet in recent years, but just under 100 vessels were still operating in 1964. Barrow has suffered from the contraction of basic industries in Furness and South West Cumberland and is now operating at very much less than its full capacity: iron ore imports for the local industry are the only remaining traffic of any size, but the port facilities are of importance to the Vickers shipyard which is the town's main source of employment.

20. Under the Harbours Act, 1964, major schemes for new port improvements are now subject to the approval of the Minister of Transport, advised by the National Ports Council which is drawing up a national ports plan. The Rochdale Committee on the Major Ports suggested that both Liverpool and Manchester should concentrate in the immediate future on improving the efficiency of their existing dock systems. Such general modernisation is being put in hand but the Mersey Docks and Harbour Board are also pressing on with a proposal for a major new dock scheme north of the Gladstone dock.

8 Future transport needs

The programme of planned improvements to transport facilities in the North West which has been outlined in the previous Chapter will not be completed for some years to come. Where major development schemes are concerned, a long period of planning and preparatory work must inevitably precede the actual job of construction. Even if finance could be found at once for large new schemes in the North West, there would be little prospect of their being completed before the early 1970s. However, by the same token it is by no means too early to consider what the outstanding needs of the North West in the transport field are likely to be when existing programmes have been completed.

ROADS

2. As far as roads are concerned, the completion of schemes in the Ministry of Transport's announced programmes will go a long way towards providing the North West with an adequate regional system linked to the main national network. The major new town and town expansion schemes which are to be carried out in the North West will all be well-sited in relation to the present and proposed motorway system. Skelmersdale will be served by a spur road from the M6; Runcorn will be close to the proposed East-West Cheshire motorway; the expansion of Warrington will benefit from the town's position on the M6; the Manchester-Preston motorway will run near to Westhoughton; and the Leyland/Chorley area is crossed by the M6 and is close to its proposed junction with the Manchester-Preston motorway.

3. Improvement in transport facilities in towns, especially the two conurbations, will pose more difficult problems. While more urban roads will be required, it is clear that the overall transport needs of the conurbations can only be met by an integrated system of roads and public transport facilities planned to cater in the most practical and economic way for the particular demands of the area concerned. Such a system must be planned for each conurbation as a whole and as an integral part of planning for land use. That is the aim of the conurbation land use/transport studies now starting on Merseyside and in the South East Lancashire conurbation. They are designed to lead to the adoption of plans for the development of a comprehensive transport system for each conurbation, coupled with plans for land use development. It will be some three years before this stage is reached.

4. Meanwhile, some progress is already being made with urgent schemes and grants of about £8 million a year are being made available by the Government. In particular, the scheme for a second Mersey tunnel is going ahead, and when this and its associated approach roads have been completed by about 1970 one of the main existing traffic problems on Merseyside will have been alleviated. But determined efforts to deal with traffic congestion in the conurbations will need to be maintained for many years to come.

5. Merseyside's links with the national network may also need further attention. The port is likely to remain of great importance to the national economy for as far ahead as can be foreseen. At present congestion and delays appear to be concentrated within the docks themselves, but when this situation has been eased it will be equally important to ensure that bottlenecks on roads leading to the docks do not prejudice the efficient working of the port. Since Merseyside is also an industrial centre of growing importance, a major improvement to its east-

ward links to the M6 may be required, possibly in the form of the Manchester-Liverpool motorway proposed by the Lancashire County Council. Westward from Merseyside, a proposal has been put forward for a crossing of the Dee estuary, one of the advantages of which would be to shorten journey times between Merseyside and North Wales. However, such a scheme would also have wider implications and it is further discussed later in this Report[1].

6. A rapid growth in road traffic at holiday periods and weekends seems likely to take place in the North West in future years, especially since ownership of motor cars in the region is not yet so widespread as in the country generally[2]. Congestion on roads leading to the Fylde coast, particularly in Preston, is already serious when holiday traffic is at its peak and this problem is likely to be accentuated by the completion of the Manchester-Preston and Lancashire-Yorkshire motorways. A motorway link from the M6 to Blackpool has been proposed, but has not yet found a place in the motorway programme. The Lake District is also likely to draw rapidly increasing volumes of traffic, especially as the M6 is extended northwards, and the burden on roads and parking facilities within the National Park will almost certainly become steadily more serious. Some spreading of the load might be achieved if roads through Furness were further improved, thus diverting some traffic round to the southern and western sides of the Lakes.

7. Improvements of this kind would also help to ease the local transport problems of Furness itself. This area is isolated from the main centres of population in the region and its present road link with the national network (the A590) is generally of a low standard. Some improvements are already programmed; and access to Barrow in particular would be very considerably improved if a barrage across Morecambe Bay were eventually to be built, incorporating a new road. But a barrage scheme could not be justified solely on transport grounds and it would in any case be a very long-term project. Meanwhile the scheme put forward by the local authorities for a new road across the Kent Estuary to connect with the planned northward extension of the M6 should be considered independently of the barrage proposal.

RAIL

8. The future development of rail services in the North West will probably be much more a matter of making the most effective use of existing facilities than of undertaking major new investment schemes. The pattern for development of the major trunk routes suggested by the British Railways Board should provide for the North West's needs for long-distance services. The part to be played by the railways in meeting the region's internal transport requirements in the long-term will need to take account of the results of the conurbation land use/transport studies, when these are available.

CIVIL AVIATION

9. It seems certain that demand in the North West for air services will continue to grow steadily in future, but in Manchester and Liverpool the region already has two first-class airports and both are capable of extension to meet considerable increases in demand. The best estimates that can be made at present of the future growth in air traffic, both passenger and freight, suggest that further major airport development will not be needed in the region until at least the mid-1980s, and possibly even later if increasing use is made of Hawarden aerodrome. If and when a further major airport is required, it would probably be best to develop it towards the north of the region, both to avoid interference with the air approaches to Manchester and Liverpool and because the Preston/Blackburn/Leyland/Chorley area may well by that time have sufficient traffic potential to support such an airport. Alternatively, improved road access might give Blackpool airport growing regional significance. Meanwhile, the road improvements described in the previous Chapter which are to be carried out in the next few years will bring Liverpool and especially Manchester Airports within convenient range of a much larger number of people in the region.

10. Lancashire County Council have suggested that the former R.A.F. airfield at Burtonwood (near Newton-le-Willows) should be developed as the North West's main regional airport. However, in the short-term the region's needs can be met quite satisfactorily by Manchester and Liverpool, in which very large sums have already been invested. Indeed, if necessary safety

1 See page 111, paragraph 20. 2 See page 48, paragraph 19.

standards were to be maintained and delays to incoming and outgoing aircraft were to be avoided, the opening of a third airport so close to Manchester and Liverpool would only reduce the overall capacity of the area as a whole. Furthermore, competing services from three airports in such a small area would almost certainly be uneconomic, except perhaps in the very long-term. Burtonwood could therefore only be developed at the expense of Manchester and Liverpool and probably only if one of them were to be abandoned.

PORTS

11. The future pattern of major port developments is a matter for national, rather than regional, planning. However, it seems certain that Liverpool's leading position as a general cargo port will be maintained and that it will continue to be one of the region's main economic assets. The port of Manchester should also continue to be important though it seems very unlikely that any major reconstruction of the Ship Canal, in order to make it possible for larger vessels to use it, would be justified. However, present conditions place no more serious restrictions on the size of ships than does the St. Lawrence Seaway and there is considerable scope for additional industrial development to take place alongside the Canal, especially in its lower sections. This would enable further use to be made of the particular advantages which the Canal offers.

Part Five

The physical environment

9 Housing needs

Even if net outward migration from the North West continues in future at about the same rate as in the recent past a very considerable increase is likely to occur in the region's population in coming years. This will create a big demand for additional housing in the region. At the same time more houses will be needed to meet existing shortages in some parts of the North West. Thirdly, as is well known, a large part of the region's present housing stock is in a poor state and needs to be replaced.

2. These three components of the North West's total housing needs in the period up to 1981 have therefore to be considered in turn. But it must be emphasised at the outset that it has not been found possible to make any final estimates of renewal needs or existing shortages, while the demand for additional houses which is likely to arise from future increase in the region's population has been calculated only on the basis of the particular assumptions regarding growth and distribution of population which were outlined in Chapter 3. Although, therefore, a final section of this Chapter brings together estimates of the North West's total needs, these estimates must be considered in relation to the assumptions on which they are based. The same qualification applies to Chapters 10 and 11 which deal with the implications of alternative estimates of housing needs in the North West for building rates and land supplies.

3. In any case, whatever housing programme may be decided upon for the North West in the years ahead will have to be accommodated within whatever national programme the state of the economy makes possible.

INCREASE IN HOUSEHOLDS

4. Chapter 3 set out two basic sets of population projections for the North West, one based on the assumption of no net population movement, and the other based on planned overspill movement and trends and rates of voluntary movement prevailing between 1956 and 1964. The object of these projections was to provide rough upper and lower estimates of future population for the region as a whole and its sub-divisions, these estimates being of course hypothetical in character and not necessarily representing the full range of possibilities.

5. These two sets of projections have been used for the purpose of making upper and lower estimates of future numbers of households requiring accommodation in the region. These estimates are set ont in Table 16 and Tables 41 and 42 of the Statistical Appendix. In them a distinction is made between "planned" movement and "voluntary" movement: by "voluntary" movement is meant movement of people on their own initiative, as distinct from movement as a result of planned overspill schemes.

6. For the region as a whole, it is estimated that nearly 281,600 additional dwellings will be required by 1981 if there is to be no net loss of population by migration, while an allowance for migration, on the basis of past trends, diminishes the total need by 54,000 dwellings. If, therefore, the assumptions on which these estimates have been made are reasonable ones, migration is unlikely to cause a drastic reduction in the total housing needs of the region. Migrationary movements will, however, materially affect the local distribution of bousing needs and their effect in this respect will roughly correspond to their effect on population distribution.

7. If natural increase alone is taken into account, it is estimated that the Mersey division's[1] needs will comprise 83 per cent of the total for the region, although its present number of households is only 74 per cent of the total for the region. This proportionate gain is at the expense of the North Lancashire division, the needs of which will constitute only 11 per cent of the region's total, although its households now constitute 20 per cent of the region's total. The South Cheshire division is left in the same relative position.

8. If, on the other hand, migration (including planned overspill) is taken into account, the position is drastically altered, and the broad effect more than compensates for the unbalancing influence of natural increase. On this basis, the Mersey division's needs will be only 54 per cent of the region's total, although currently it has 74 per cent of the region's households. In contrast, the North Lancashire division's needs will be 30 per cent of the region's total, although at present it has only 20 per cent of the region's households. The Cheshire division, which has now only 6 per cent of the region's households, will have 14 per cent of its increase.

9. Equally important shifts take place within the divisions themselves. In the North Lancashire division, the Ribble sub-division represents some two-thirds of total household increase, if no account is taken of migration (including overspill), and the Lancaster/Fylde sub-division only a quarter. If migration is taken into account, the position is roughly reversed.

10. Within the Mersey division, and particularly within the conurbation sub-regions, the balance of need is substantially altered by migration, and reflects a considerable movement out from the inner areas of the conurbations. The Manchester and North Merseyside sub-regions will actually suffer a net loss of households.

CURRENT SHORTAGES

11. Estimates of existing housing shortages in the North West have been worked out from the following:—

(a) data supplied by local planning authorities on the basis of screened waiting lists (families already in separate accommodation are excluded);

(b) an estimate of shortages arrived at by setting the number of occupied dwellings in 1964 against a calculation of the total number of households requiring separate accommodation. This calculation takes into account 1961 census information on enumerated households.

Table 16 **Estimates of Numbers of New Households Requiring Accommodation by 1981**

Area (1)	*Simple Projection on Basis of Natural Increase only* (2)	*Projection adjusted for Planned Overspill Schemes* (3)	*Projection further adjusted for Voluntary Migration based on Past Trends* (4)
The North-West	281,590	281,590	227,590
North Lancashire Division	30,150	45,150	69,250
Furness Sub-Division	3,520	3,520	1,920
Lancaster-Fylde Sub-Division	7,600	7,600	40,300
Ribble Sub-Division	19,030	34,030	27,030
Mersey Division	233,140	212,840	124,940
Merseyside Sub-Division	90,950	61,740	25,240
Warrington-Wigan Sub-Division	36,250	90,260	81,260
South East Lancs. Sub-Division	105,940	60,840	18,440
South Cheshire Division	18,300	23,600	33,400

[1] Figure 6 on page 9 shows the divisions, sub-divisions and sub-regions referred to in this chapter.

These estimates are set out for sub-divisions in Table 41 of the Statistical Appendix[1].

12. They show that the Mersey division suffers a shortage of nearly 75,000 dwellings compared with one of just over 82,000 for the region as a whole. This means that over 90 per cent of the existing shortage in the region arises within this division although it has only 74 per cent of the region's total housing stock.

13. Within the Mersey division itself, the most serious area of shortage is the Merseyside sub-division. The shortage of just over 40,000 dwellings here is in fact nearly half the total shortage for the region, and the bulk of it is concentrated on North Merseyside where over 33,500 additional dwellings are needed, 25,000 of them in Liverpool. The 1961 census showed that Liverpool had 11·7 per cent of its population living at a density of more than 1½ persons per habitable room,[2] and Bootle 8·6 per cent. The worst areas on North Merseyside for overcrowding were however shown to be Kirkby and Huyton for which the corresponding percentages were 18·8 per cent and 13·1 per cent (these have been reception areas for overspill from Liverpool).

14. The second worst area of shortage is the South East Lancashire sub-division with a deficiency of nearly 27,000 dwellings. The Manchester sub-region as a whole has a shortage of about 17,500 dwellings, and Manchester County Borough in particular one of 8,000. The 1961 census showed that Manchester had 6·4 per cent of its population living at densities of more than 1½ persons per habitable room.

15. The remaining sub-division of the Mersey division (Warrington/Wigan) has a shortage of just over 7,300 dwellings. The 1961 census showed that St. Helens had 6·5 per cent of its population living at densities of more than 1½ persons per habitable room. The corresponding percentage for Wigan is 5·7 per cent with 8·6 per cent and 7·1 per cent for the areas of Aspull and Ince in Makerfield adjoining.

16. Outside these areas there are no widespread shortages. Indeed the absence of such shortages is generally characteristic of the older Lancashire industrial towns which have experienced persistent net outward migration of population.

RENEWAL NEEDS

17. Renewal needs have been considered primarily in terms of dwellings in need of replacement either because they are already unfit or are likely to become unfit by 1981, or because they must be demolished to make way for other planned developments. To enable an assessment of this problem to be made, local planning authorities were asked in December 1964 to submit estimates of the total renewal needs of their areas as they stood at the middle of 1964.[3] These estimates have been used throughout this section of the report.

18. Use has not been made of the official slum clearance returns which local authorities submitted to the Ministry of Housing and Local Government in 1955 and which have been amended from time to time since. The reason for this is that some of the figures in these returns appear to be related to actual clearance programmes rather than total needs, and some are in any case out of date. The Ministry of Housing and Local Government have however recently sent all authorities a circular asking them to submit fresh estimates of the number of unfit houses in their areas regardless of the time which will be required in order to clear them. These estimates were not available in time to be taken into account in the preparation of this report.

19. Although local authorities have little difficulty in deciding when a house is patently unfit to live in, the statutory definition of a slum is not precise, and local authorities cannot be expected always to apply exactly the same standards in judging whether a particular dwelling is unfit. A sub-committee of the Central Housing Advisory Committee is at present examining the whole question of standards of fitness to see whether greater objectivity can be achieved. Meanwhile, however, the following measures have been provisionally used as additional guides to the condition of the region's housing stock, and the resulting information is recorded in detail alongside the local planning authorities' estimates in Table 39 of the Statistical Appendix.

[1] In addition, Table 40 of the Statistical Appendix gives census data on overcrowding.

[2] The statutory definition of overcrowding for the purposes of the Housing Acts is a density of one or more persons per habitable room. These figures, therefore, illustrate severe overcrowding.

[3] The figures were supplied by the planning departments of these authorities, after consultation with district council officers in the case of the counties.

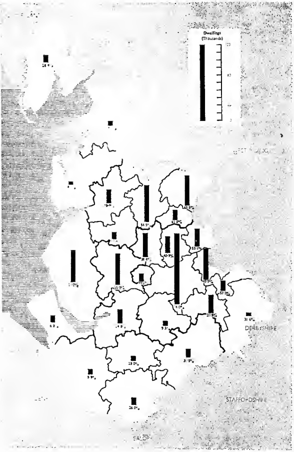

Fig. 25. Dwellings with rateable value £30 or less, 1963

The heights of the columns are proportional to the number of dwellings with rateable value £30 or less at April, 1963. The percentage which these represent of all separately rated dwellings is given in figures; for England and Wales as a whole the proportion is 18.5 per cent (see Appendix, Table 39)

(a) **Rateable Value**

Rateable value statistics provide, subject to certain regional and local variations in values, a rough indication of the general quality of housing in particular areas, and Group I dwellings, which consist of those valued at £0-£30 (exclusive of farm workers' dwellings) can be regarded, whatever the area, as representing a sub-standard category of accommodation. Dwellings within this category are generally old, small, and of poor quality and can certainly be regarded as potential, if not actual, slums. Statistics of Group I dwellings have accordingly been compared with the local estimates of slum clearance needs.

(b) **Lack of Baths**

The presence or absence of a fixed bath is a useful objective criterion of the general quality of a dwelling, though houses without baths are not necessarily to be regarded as slums. 1961 census estimates of houses without baths have also therefore been compared with the local slum estimates and rateable value data.

(c) **Age of Buildings**

No reliable and complete information is available on the age of dwellings. However, a significant index of the proportion of housing in an area which is obsolete can be obtained by comparing the total number of dwellings enumerated at the 1861 and 1881 censuses with those enumerated at the 1961 census. The higher the proportions of dwellings recorded at the previous censuses in relation to the total number recorded at 1961, the worse the problem of obsolescence is likely to be, unless an exceptional amount of re-development has taken place in the interim.

20. According to the local estimates, roughly 440,000 dwellings in the North West are either unfit to live in or are likely to become so by 1981; this represents a ratio of one in every five dwellings. This figure compares with a total of about 537,000 dwellings of £30 rateable value or less, and a total of nearly 512,000 dwellings lacking a fixed bath.

21. Although there are no corresponding returns from local planning authorities for the rest of England and Wales, comparable statistics are available of dwellings of £30 rateable value or less. Table 17 compares the North West in this respect with the country as a whole and with certain other parts of it which suffer from major problems of obsolescence.

Table 17 **Numbers of Dwellings of £30 Rateable Value, or Less—a Comparison with the National Total and with Totals for Selected Geographical Counties**

Area	Number of Dwellings	Percentage of Total Housing Stock
England and Wales	2,586,746	18·5
The North West	536,931	25·9
North Lancs. Division	137,375	32·9
Mersey Division	368,831	24·0
South Cheshire Division	30,725	25·1
Durham	144,467	30·2
Glamorgan	94,397	26·6
London	18,428	2·1
Staffordshire	111,721	21·0
Yorks. (West Riding)	460,319	38·2

22. This table shows that the North West has roughly one fifth of the total number of dwellings in England and Wales which fall in the lowest rateable value group; and that nearly 26 per cent of the region's total housing stock falls within this group compared with the national average of 18½ per cent. Although the North West as a whole and the most densely populated part of the region (the Mersey division) do not appear to have a proportionately greater number of dwellings in this group than certain other industrial areas of the country, there are individual local authority areas in Lancashire where conditions in this respect are at least as bad as any in the other counties mentioned. In general it can be said that although the proportion of poor housing stock in the North West is not exceptional for a region extensively developed during the Industrial Revolution, the scale and concentration of the problem there is outstanding. (See Figure 25.)

23. The broad pattern of renewal needs within the region is illustrated in Table 39 of the Statistical Appendix, which includes the numbers

of dwellings local planning authorities consider will have to be cleared for reasons other than their condition (for example, because of necessary road improvements or to enable town centre re-development schemes to be carried out). Three-quarters of the slums in the North West, according to the local estimates, lie within the Mersey division, and two-thirds of the slums within this division (in other words nearly half the region's total) are to be found within the South East Lancashire sub-division where in all roughly one-quarter of the housing stock is said to be in need of clearance. The main problem appears to be in the Manchester sub-region where nearly 30 per cent of the existing stock needs to be replaced.

24. Although the slum problem in the Merseyside sub-division is estimated as substantially less than that in the South East Lancashire sub-division in terms of numbers, it is proportionally just as great. Here over one quarter of the total housing stock is said to be in need of clearance. The problem is in fact concentrated on North Merseyside where 31 per cent of the housing stock needs to be cleared.

25. The other main areas of need are in the Ribble sub-division, chiefly in the Blackburn, Rossendale and Burnley sub-regions. Here one in every three dwellings (within Blackburn and Burnley themselves every other dwelling) is said to be in need of clearance.

26. The broad pattern of needs emerging from these estimates is borne out in the main by the rateable value and census statistics. There are, however, significant variations and discrepancies. For instance, the Merseyside sub-division is estimated to have just over 100,000 slums, although only about half this number of its dwellings have rateable values of £30 or less. On the other hand, the South East Lancashire sub-division is said to have about 210,000 slums, while over 260,000 of its dwellings fall within this lowest rateable value group. This difference suggests that the basic renewal problem in the South East Lancashire sub-division may be even greater than the slum estimates show and proportionally greater than in the Merseyside sub-division—a hypothesis supported to some extent by the census data on houses without baths.

27. The position within the South East Lancashire sub-division is illustrated in detail in Table 39 of the Statistical Appendix and from this it can be seen that the slum estimates for several of the peripheral areas are far short of the total numbers of their dwellings in the lowest rateable value group. For instance, it appears that the numbers of slums in Bolton, Bury, Stalybridge and Stockport are less than a half in each case of the total numbers of dwellings in the lowest rateable value group.

28. It is inconclusive to compare the Manchester sub-region with the other sub-regions in this respect since property values towards the centre of the conurbation tend to be higher. However, the census statistics on lack of fixed baths give some support to the view that housing conditions in the urban belt running roughly in an arc round the northern part of the conurbation may be as bad as, if not worse than, those within the Manchester sub-region as a whole.

29. Other parts of the region where the data seem to indicate that the renewal problem has been under-estimated are the Warrington/Wigan sub-division and the Ribble sub-division. In the case of the former, some 30 per cent of the total housing stock falls within the lowest rateable value group and lacks a fixed bath, while only a little over half this percentage of its dwellings are classified as slums. In the case of the latter, roughly one-third of the dwellings are classified as slums and lack fixed baths, but 46 per cent fall within the lowest rateable value group.

30. The general conclusion to be drawn from these comparisons is that while at least two-thirds of the North West's renewal problem falls within the Mersey division and is concentrated in the main in the conurbations, the problem in North East Lancashire, the Wigan-Warrington area, and a number of towns on the north side of the Manchester conurbation may well be worse than the local estimates show, and proportionally worse than in the centres of the conurbations.

THE REGION'S HOUSING NEEDS SUMMARISED

31. These three elements—future increase in households, existing shortages and renewal needs—can now be brought together to provide an estimate of the North West's total housing needs in the period up to 1981. This is done in summary form in Table 18 and a more detailed analysis is given in Table 41 of the Statistical Appendix. The predominance of slum clearance

needs is obvious. Irrespective of whether allowance is made for migration, these represent the greater part of the total needs of the region as a whole and of the Mersey and North Lancashire divisions. Even the slum totals for these areas, however, are considerably smaller than the number of dwellings in them of £30 rateable value or less.

32. Another striking point which emerges is the present deficiency of dwellings on Merseyside. This deficiency amounts to nearly one-third of slum clearance needs, and the problem is concentrated on North Merseyside.

33. In general, despite the provisional nature of the slum estimates and the uncertainty regarding future population movement, it can be concluded that the housing needs of the North West up to 1981 will be enormous, that they will be concentrated in the main in the Mersey division, and that the extent of clearance needs in this division is likely far to outweigh any reduction of total housing needs which may result from approved overspill schemes. In addition, it may well turn out that the renewal needs of the Wigan-Warrington area, and some of the cotton towns, are worse than the slum estimates show and proportionally as bad, if not worse, than those in the inner areas of the conurbations.

34. The different estimates of total needs shown in Table 18 are not, however, set out with the intention of suggesting that any particular one should be adopted as a basis for action. They are simply designed to show the varying scale of the total problem depending upon different assumptions adopted regarding migration and the desirability of clearing sub-standard property. The implications of these estimates for housing rates and land supplies are dealt with in the next two chapters.

Table 18 **Alternative Estimates of Total Housing Needs Based on Differing Assumptions Regarding Migration and Redevelopment Needs**

Area	*Total Housing Need Allowing for Voluntary Migration*	*Total Housing Need not Allowing for Voluntary Migration*	*Total Housing Need not Allowing for Migration and Assuming Clearance of all Dwellings of £30 Rateable Value or less*	*Effect of Planned Overspill Movement*
The North West	791,090	845,090	942,051	—
North Lancashire Division	150,600	126,500	175,155	+15,000
Furness Sub-Division	4,060	5,660	14,131	Nil
Lancaster-Fylde Sub-Division	55,070	22,370	18,498	Nil
Ribble Sub-Division	91,470	98,470	142,526	+15,000
Mersey Division	599,210	687,110	715,091	−20,300
Mersey Sub-Division	219,490	255,990	204,809	−29,210
Warrington-Wigan Sub-Division	66,370	75,370	104,097	+54,010
South East Lancs. Sub-Division	313,350	355,750	406,185	−45,100
South Cheshire Division	41,280	31,480	51,805	+ 5,300

10 Implications for house building rates

If by 1981 all the people living in the North West are to be provided with tolerable housing conditions, a tremendous programme of new building will have to be carried through. Table 19 compares three alternative estimates of total housing needs in the North West with the sum of the dwellings which would be built in the region if the annual housing rate up to 1981 were the average for the three years mid 1961-mid 1964. This average has been chosen as a basis for comparison rather than the latest annual figure because a projection based on the results of any single year is likely to be very unreliable. The main purpose of the table is to demonstrate the implications for the building industry of the different estimates of needs. While, therefore, allowance is made for planned overspill movements in estimating the provision required in particular areas, no deduction is made from totals of regional needs to allow for new town proposals since these too create demands upon resources within the region.[1]

2. Table 19 shows that a substantial shortage will occur, even on the lowest of the alternative

Table 19 A Comparison of Alternative Estimates of Needs with Recent Total Building Rates

Area	*Total Housing Provision Required Allowing for Voluntary Migration* (1)	*Total Housing Provision Required not Allowing for Voluntary Migration* (2)	*Total Housing Provision Required not Allowing for Migration and Assuming that all Dwellings of £30 Rateable Value or Less to be Cleared* (3)	*Result of Projection to 1981 of Mean Total Annual Building Rate for mid-1961 to mid-1964* (4)
The North West	791,090	845,090	942,051	616,119
North Lancashire Division	165,600	141,500	190,155	111,945
Furness Sub-Division	4,060	5,660	14,131	6,109
Lancaster-Fylde Sub-Division	55,070	22,370	18,498	43,788
Ribble Sub-Division	106,470	113,470	157,526	62,050
Mersey Division	578,910	666,810	694,791	455,486
Merseyside Sub-Division	190,280	226,780	175,599	135,716
Warrington-Wigan Sub-Division	120,380	129,380	158,107	79,453
South East Lancs. Sub-Division	268,250	310,650	361,085	240,317
South Cheshire Division	46,580	36,780	57,105	48,688

N.B. Figures in columns (1) and (2) include local estimates of slums.

1 The precise assumptions made in respect of planned overspill movement are given in Table 42 of the Statistical Appendix.

estimates of needs, if house building rates in the North West are not greatly increased. If all houses regarded as slums were to be replaced, and if there were to be no net loss of population by voluntary migration, the average annual building rates for the region as a whole and for the Mersey division[1] would have to be raised by 37 per cent and 48 per cent respectively above the average for mid 1961-mid 1964 (equivalent to annual compound increases of nearly 4 per cent in the first case and slightly over 4 per cent in the second). If in addition all dwellings of £30 rateable value or less were to be cleared, the average rates in both cases would have to be over 50 per cent higher (equivalent to an annual compound increase of roughly 5 per cent). Only in the South Cheshire division is little increase likely to be needed to meet foreseeable requirements.

LOCAL AUTHORITY BUILDING RATES AND CONTRIBUTION OF NEW TOWN PROPOSALS

3. In calculating the proportion of housing needs which will have to be met by local authorities (with the aid of new towns in certain cases), it has been assumed that slum clearance will continue to be carried out almost exclusively by local authorities, and that in general this will be the main element in their housing programmes. Estimates have accordingly been worked out on the assumption that they will have to meet all slum clearance needs, all other redevelopment needs, but only a quarter of general housing needs. The total contribution to be made by developments under the New Towns Acts has been assumed to be 53,000 dwellings.[2]

4. The scale of the demands which it is thus estimated may fall upon local authorities, is illustrated in Table 41 of the Statistical Appendix. It is clear that in general a much greater increase will be needed in local authority house building rates than in overall house building rates, even on a moderate assessment of the burden falling upon the public sector. If all homes regarded as slums were to be cleared, and the appropriate proportion of general needs (as calculated) to be met, the average annual local authority building rate for the region as a whole would have to be more than doubled, even allowing for the contribution of new towns and for continued net outward migration on the basis of past trends. This is roughly equivalent to an annual compound increase of 8 per cent. In the Mersey division the local authority building rate would have to be nearly doubled, and there would have to be a compound annual increase of between 7 and 8 per cent. In the Ribble sub-division of North East Lancashire an annual compound increase of more than 15 per cent would be necessary.

Table 20 **Projection of Past Slum Clearance Rates**

Area	*Time Required to Clear Estimated Totals of Slums* at Mean Clearance Rate for mid-1961 to mid-1964*	*Time Required to Clear all Dwellings of Rateable Value of £30 or less at Mean Clearance Rate for mid-1961 to mid-1964*
	Years	*Years*
The North West	33	40
North Lancashire Division	50	78
Ribble Sub-Division	49	78
Mersey Division	31	34
Merseyside Sub-Division	42	21
South East Lancs. Sub-Division	29	36
South Cheshire Division	15	45

* These estimates do not allow for slums accumulating after 1981; nor do they allow of course for the possibility of increasingly higher standards of fitness being applied.

[1] Figure 6 on page 9 shows the divisions, sub-divisions and sub-regions referred to in this chapter.

[2] Table 42 of the Statistical Appendix gives a breakdown of this figure.

5. The position in relation to slum clearance is brought out starkly in Table 20 which compares estimated needs with recent clearance rates.

PRIVATE ENTERPRISE HOUSING RATES

6. The position in relation to the private sector is however markedly different. It is clear from Table 21 that over the region as a whole, the North Lancashire division, and the South East Lancashire sub-division, a continuance of current private enterprise building rates would produce enough houses to meet all future demands except for those arising from redevelopment needs, even if estimates are based on the assumption of no net loss of population by migration. And if allowance is made for migration on the basis of past trends, enough houses would be produced by the private sector to meet all but redevelopment needs even in the Mersey division as a whole and in the Merseyside sub-division.

BROAD CONCLUSIONS

7. Despite the tentative nature of the alternative estimates of total needs, and their implications for building rates, it is clear that a substantial increase in building rates in the North West will be needed in the years up to 1981, and that the burden falling on the public sector will be disproportionately large in relation to its current share of house building activity. A continuation of past building rates in the private sector would, on the other hand, appear to be adequate in general to meet most of the region's general needs.

8. This report does not attempt to assess the future capacity of the building industry or the extent to which local authorities may be able to increase their building rates. A projection of past building rates would give no useful guidance in the absence of any definite long-term trend. Clearly the future performance of local authorities may be influenced by a wide range of factors such as the further development of industrialised building techniques, local government reorganisation, and the current reviews of housing subsidies and local government finance.

9. There is, however, already evidence of vigorous action by some local authorities to meet their problems.[1] Manchester and Liverpool Corporations, in particular, have made a comprehensive assessment of long-term needs, and are planning well ahead to meet them. Much

Table 21 **Possible Contribution by Private Enterprise to Meeting Other than Slum Clearance Needs**

Area	*Housing Need (less Redevelopment) Allowing for Voluntary Migration and Planned Overspill Movement* (1)	*Housing Need (less Redevelopment) not Allowing for Voluntary Migration but Allowing for Planned Overspill Movement* (2)	*Contribution by Private Enterprise on basis of Mean Annual Building Rate mid-1961 to mid-1964* (3)
The North West	309,710	363,710	369,104
North Lancashire Division	74,720	50,620	88,020
Furness Sub-Division	2,890	4,490	4,239
Lancaster-Fylde Sub-Division	42,200	9,500	40,460
Ribble Sub-Division	29,630	36,630	43,321
Mersey Division	199,370	287,270	248,637
Merseyside Sub-Division	65,430	101,930	68,532
Warrington-Wigan Sub-Division	88,590	97,590	53,246
South-East Lancs. Sub-Division	45,350	87,750	126,859
South Cheshire Division	35,620	25,820	32,447

[1] Local authority completions rose from 14,841 in 1963 to 18,126 in 1964. The next best year was 1961 when 11,957 dwellings were completed.

has, moreover, already been done with the assistance of the Regional Office of the Ministry of Housing and Local Government to raise building rates by greater use of industrialised building techniques and by the better organisation and disposal of resources. The establishment of two consortia of housing authorities in the region is a particularly significant development.

10. It is therefore reasonable to look forward to continued increases in building rates in the public sector, some of them substantial. But it may be doubted whether these will be adequate, particularly in mid-Lancashire and the "cotton towns" where there is evidence that the renewal problem is proportionally worse than in the key cities of the region. This is a problem which must obviously be studied further not only in relation to the capacity of the building industry, and the housebuilding rates attainable by local authorities, but also in relation to the competing claims of other public buildings and works programmes in the region and elsewhere.

11. It is however clear that, whatever the scale of increases in building rates which may be achieved, it is of vital importance to secure the conservation and improvement of existing dwellings, where this is practicable. Much of the region's housing stock, though old and deficient, is structurally sound and capable of improvement, and the sheer weight of the basic slum problem makes it essential that these dwellings should be used to the best advantage. This involves not only encouraging more individual improvements to property for which grants are available, but also the carrying out of wider environmental improvements under the "improvement area" procedure. The possibilities for comprehensive improvements of this kind are at present the subject of a pilot study being undertaken by the Ministry of Housing and Local Government in the Deeplish area of Rochdale.

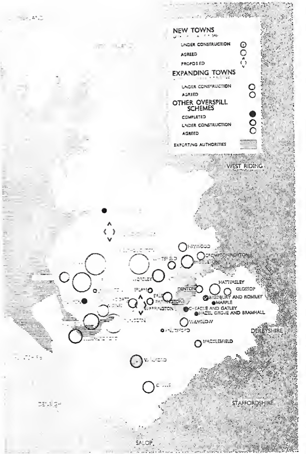

Fig. 26. **New Towns, expanding towns and other overspill schemes**

Agreed new towns, town development and other overspill housing schemes are shown as at mid-1965. Relative numbers of dwellings being provided for planned overspill are indicated by the areas of the circles. The approximate locations of the proposed new towns at Leyland-Chorley and Warrington are also shown

11 The need for housing land

THE BASIS OF ASSESSMENT

If the North West's housing needs in the period up to 1981 are to be met, substantial quantities of additional land in the region will be required for housing. In order to make some estimate of the amount of land already available to meet housing needs, local planning authorities were asked for returns; the information drawn from them is set out in Table 41 of the Statistical Appendix. These returns were not based on a detailed site survey or on common assumptions regarding housing densities; they must therefore be regarded as providing only approximate assessments and may include some land the development of which may not in the end be approved owing to conflicting claims. On the other hand, the returns for a number of areas where no special problems arise merely show, as available for development, land actually required to meet housing needs. For this reason, the returns for the region as a whole, the North Lancashire division and the South Cheshire division are almost certainly under-estimates. The returns for the Wigan/Warrington sub-division also probably embody slight under-estimates since the capacities of Skelmersdale, Runcorn and Westhoughton have been assessed in terms of population targets and not actual land availability.

2. The returns are, in fact, estimates of land falling into the following two categories:—

(a) **Virgin Land**

All land zoned for residential development in town maps, approved or in draft, which was not developed to the point of occupation by mid-1964; in addition, land outside proposed green belts[1] not so allocated, but thought suitable for development. (Certain sites are however included which are on the periphery of the Merseyside conurbation and which the Minister of Housing and Local Government has already proposed to exclude from the Merseyside and South East Lancashire Green Belt).

(b) **Land for Redevelopment**

All land to be made available for housing in slum clearance and other redevelopment areas. In some cases the total has been calculated by applying broad assumptions on replacement rates to total slum clearance needs.

3. The exclusion of proposed green belt areas from these returns is not intended to indicate that it would necessarily be wrong to develop any site within them. The aim of the exclusion was solely to form an estimate of the amounts of land which would be available without encroaching on proposed green belts, and there is no doubt that in the Mersey division and elsewhere there is proposed green belt land which is capable of development.

BROAD RESULTS

4. The returns from the planning authorities show a surplus of housing land in the region as a whole, irrespective of whether account is taken of the possibility that net outward migration may come to an end. But this is of little significance in itself since surpluses in parts of the region cannot automatically be set against deficiencies in others. The broad picture is in fact one of a substantial surplus in the North Lancashire division, a moderate surplus within the South Cheshire division, and a deficit within the Mersey division (a very large one if no net

[1] The green belt proposals which have been made for the North West are described in Chapter 12 below.

loss of population by voluntary migration is assumed).

5. Closer analysis of the figures shows, moreover, that no serious shortages are likely to arise within the North Lancashire and South Cheshire divisions, although there are pockets of shortage in one or two towns (Preston for example). The only serious problems arise within the Mersey division, where allowing for all planned overspill schemes both the Merseyside and South East Lancashire sub-divisions are shown as having inadequate land, even if net loss of population by voluntary migration continues. These deficiencies contrast with a moderate surplus in the Wigan/Warrington sub-division.

6. Land shortage appears therefore almost exclusively a conurbation problem, and Table 22 illustrates the position in the two sub-divisions in question.

THE MANCHESTER CONURBATION[1]

7. It emerges from Table 22 that, if past net voluntary migrational trends continue, planned overspill schemes will be more than adequate to meet the overspill needs of the Manchester sub-region, and that the only areas of large shortages will be the Stockport and Altrincbam sub-regions. Nevertheless, the South East Lancashire sub-division as a whole is still left with a net deficit of 2,700 dwelling sites, and this is increased to one of 45,100 sites, if a cessation in net outward migration is assumed.

8. The Stockport and Altrincham sub-regions comprise attractive dormitory areas which have hitherto experienced considerable net immigration of population, and it is the projection of this trend which is the main cause of the large shortages shown against them in column 2 of Table 22. These estimates of sbortages are therefore artificial in the sense tbat if all land available in the two sub-regions is eventually used up, net immigration will almost certainly cease. The figures are nevertheless highly significant as demonstrating the inadequacy of the land still available in the two sub-regions to meet future private enterprise demands on the scale on which they have arisen in the past; the question which naturally arises is whether, failing the provision of other equally attractive areas to live in, people who would otherwise have settled in these sub-regions will be willing to live in hitherto less favoured parts of the sub-division or in places further afield within commuting distance. If they

Table 22 **The Merseyside and Manchester Areas—Deficiencies of Dwelling Sites up to 1981**

Area	*Land Deficiency on Assumption of No Voluntary Migration and Accepting Local Estimates of Slums* (1)	*Land Deficiency on Assumption of Continuance of Past–1956 Voluntary Migration Trends and Accepting Local Estimates of Slums* (2)
Merseyside Sub-Division	−65,860	−29,360
North Sub-Region	−69,030	−27,330
South Sub-Region	+ 3,170	− 2,030
South East Lancashire Sub-Division	−45,100	− 2,700
Manchester Sub-Region	−51,930	+ 1,670
The Other Lancashire Sub-Regions	+ 1,300	+19,800
Stalybridge and High Peak Sub-Regions	+ 7,090	+ 9,790
Stockport and Altrincham Sub-Regions	− 1,560	−33,960

N.B. All these figures allow for planned overspill movement between sub-divisions and sub-regions.

1 For statistical purposes, the South East Lancashire sub-division.

are not willing to do one or other of these things, the failure to provide further attractive dormitory sites within the sub-division may lead to an increase in the number of people migrating from the region altogether.

9. It would appear therefore on the basis of the figures in Table 22 that if net outward voluntary migration from the sub-division as a whole continues as in the past, the planned provision for overspill is more than adequate to meet future demands in the public sector, but that there will be a shortage of at least 2,700 dwelling sites for private enterprise housing (the net deficiency figure for the sub-division as a whole) and possibly a good deal more. If however net voluntary migration from the sub-division as a whole is to cease, there will be substantial shortages of land for both public and private enterprise housing.

10. Since these estimates of shortages are hypothetical in character, it is not possible to do more than make tentative calculations of the times at which they might occur. Alternative estimates have accordingly been worked out for sub-regions in Table 23. These take account of all planned overspill movements, including movements within the sub-division, but do not otherwise assume that deficiencies in some sub-regions will be offset by surpluses in others.

11. Broadly speaking, these alternative estimates point to two conclusions. The first is that even if net voluntary migration from the Manchester sub-region ceases, no further major overspill scheme will be necessary in the short and medium term to meet its needs. The second conclusion is that if net immigration into the Stockport and Altrincham sub-regions continues as in the past, they will run short of land in the early 1970s. This means in effect that the more attractive areas at present available to private enterprise building within the sub-division will then in the main be exhausted.

THE MERSEYSIDE CONURBATION[1]

12. Of the two conurbations, however, Merseyside appears to be in by far the worse position. The overspill problem, which is almost entirely confined to North Merseyside, is enormous in relation to the size of the area. Notwithstanding plans for two new towns, several town development schemes, and major development projects for peripheral sites, there is a net deficit of over 29,000 dwelling sites to meet needs up to 1981, even if net loss of population by migration continues. If this is stopped, a net deficit of some 66,000 sites will remain to be met. Moreover, these totals must be regarded as minimum totals in view of the difficulty of matching surpluses and deficits in a conurbation split by a river with limited communications across it.

13. The planning problem created by the needs of Merseyside is the most acute land-use problem in the North West. On the one hand, there is a large existing shortage of dwellings, an enormous slum problem, and the prospect of an exceptionally high birth rate, all creating extensive demands for more land for development. On the other hand, North Mersey side is a closely built up area hemmed in by the sea, the river, and a tract of first-class farming land which is also part of a proposed green belt.

14. It is not possible by analysis of the figures in Table 22 to judge what proportion of any extra land required would be needed for public authority housing. However, the very high proportion

[1] For statistical purposes, the Merseyside sub-division.

Table 23 **Sub-Regions in South East Lancashire where Land Shortages will occur before 1981**

	Sub-Region	*Year*
(a)	If current* building rates continue:	
	Stockport	1973
	Altrincham	1975
(b)	At building rates required to meet future needs† assessed on the assumption of no net population movement:	
	Manchester	1976
	Oldham	1976
	Stockport	1978
	Bolton	1980
	Leigh	1980
(c)	At building rates required on the assumption of a continuance of migrationary trends prevailing between 1956 and 1964:	
	Stockport	1971
	Altrincham	1973
	Oldham	1979

* The current rate here = the mean annual building rate for the three years mid-1961—mid-1964.

† Needs include local estimates of slums.

of North Merseyside's housing needs attributable to slum clearance and overcrowding suggests that a substantial part of any extra land required would be bound to be needed for planned overspill schemes.

15. The possible timing of shortages has been worked out on the same assumptions as those for the South East Lancashire sub-division, and it has been calculated that if current building rates continue, no land shortages will occur either in the North Merseyside or South Merseyside sub-regions before 1981. If, however, building rates are to be raised to the level necessary to meet future needs as estimated, shortages will occur as follows:

On the assumption of no net population movement	*Year Beginning*
North Merseyside	1974
South Merseyside	1982
On the assumption of net population movement as in the past	
North Merseyside	1977
South Merseyside	1980

16. These figures suggest that, whichever assumption is adopted regarding migration, any general overspill problem is a long-term one. Shortages may however occur in individual local authority areas somewhat sooner than these figures indicate. Liverpool Corporation have in fact calculated that they will run short of land for council housing in the early 1970s.

GENERAL CONCLUSIONS

17. The land supply statistics show an overall surplus for the region as a whole which is the net product of deficiencies in the Mersey division and surpluses in the North Lancashire and South Cheshire divisions. It would however be an over-simplification to think of the housing land problem in terms of a regional balance sheet. The problem is essentially a problem of the two conurbations, and surpluses of land far removed from the overcrowded towns of the conurbations can do nothing to meet their needs, except to the extent that these more distant areas are able to provide sites for planned overspill schemes.

18. Some important developments to meet the needs of the conurbations are already in progress or approved. Merseyside will benefit from the new towns designated at Skelmersdale and Runcorn, from town development schemes at Widnes, Ellesmere Port, and Winsford and by the release of certain peripheral sites within the proposed green belt for North Merseyside. The Manchester conurbation will benefit from town development schemes at Winsford, Macclesfield, and Crewe, and from a number of peripheral housing schemes for which land has been released. In addition, a major overspill scheme at Westhoughton has been approved and proposals have been put forward for developments under the New Towns Acts in the Warrington and Leyland/Chorley areas.

19. All in all, it appears that the short and medium term overspill needs of both conurbations will be met, if all the schemes now in the pipe-line go through. But even if it is assumed that the sub-divisions in question will experience a continuation of past voluntary migration trends, a very substantial further provision of land will be necessary to meet the needs of the Merseyside conurbation both in the public and private sectors, and more land will be needed for private enterprise housing in or near the Manchester conurbation. If it is assumed that there will be a complete cessation of net voluntary migration from these sub-divisions, then the overspill problems to be faced in both cases will be enormous.

20. No attempt is made here to recommend one or other of the two assumptions regarding voluntary migration that form the basis of the alternative estimates of housing land requirements; nor are these assumptions necessarily the only ones which might reasonably be made. The sole object has been to illustrate the varying scale of the housing land problem depending upon the extent to which it is planned to hold within the North West the population growth generated within its main urban areas. Whether it is in fact feasible to plan to hold all this population growth within the region is a question which must be considered in the wider economic context. Only when decisions have been taken on strategic issues of this kind, will it be possible to make a firm assessment of future overspill needs (including industrial and other land requirements) and to decide in what ways these needs should be met. One thing is however fairly certain and that is that re-development needs alone will continue to generate overspill from the conurbations well beyond 1981, and any decisions therefore on further major overspill schemes should be taken against the background of a long-term strategy.

12 The Green Belts

In considering where additional land for urban development might be provided in the North West the future of the green belt proposals which have been made must be taken into account. Local authorities were originally recommended to consider the establishment of green belts wherever this seemed desirable in order to check the growth of large built-up areas or to prevent neighbouring towns from merging into one another, or to preserve the special character of a particular town.

2. Five main sets of proposals for green belts were drawn up by local planning authorities in the North West. These proposals, their aims and their history are summarized in Table 24 and the areas covered by them are shown in Figure 27. Local planning authorities have been invited to use these proposals as an interim guide to planning control, following the submission of informal sketch plans. However, none has yet been formally approved as part of a development plan for the area concerned. Action has in fact been deferred in all cases until a comprehensive appraisal of the long-term land needs of the region has been completed.

MAIN OBJECTIVES OF GREEN BELT PROPOSALS

3. Of the five sets of green belt proposals put forward for the North West four are designed to limit urban growth and coalescence within the Mersey division; and of these four, the ones for Merseyside and South East Lancashire submitted by Lancashire County Council, are by far the most important. The belt proposed stretches from west to east across almost the whole division. It hems in tightly the built-up area of North Merseyside, encloses Warrington and Widnes, and fills a labyrinthine series of gaps and inlets on the northern side of the Manchester conurbation. Within the Merseyside section of the belt is included the first-class farming land of the Ormskirk plain, some of it pleasant countryside; within the ship-canal area, more first-class farming land is included, but the countryside is less attractive. To the north of the Manchester conurbation, however, where the belt is drawn less tightly than on Merseyside, neither the quality of the soil nor that of the countryside are in general high.

4. The Merseyside and South East Lancashire green belt is complemented on the south by two further proposals—the West Cheshire green belt which is designed to contain growth in the Wirral and to prevent Chester and Ellesmere Port from merging; and the North Cheshire green belt which encompasses the southern part of the Manchester conurbation. The West Cheshire green belt links up with one proposed by Flintshire County Council; and the North Cheshire green belt links up with the three small areas in the Peak District which are the subject of proposals by Derbyshire County Council.

5. The South Cheshire green belt is entirely unconnected with the others. It links up with corresponding proposals made by Staffordshire County Council for a green belt to limit the growth of the Potteries and the merging of nearby towns such as Alsager and Kidsgrove.

6. The Cheshire green belts include much pleasant flat countryside and good farming land. The Derbyshire green belt areas are spoilt to some extent by prominent development on hill sides, but have a rugged bleak charm of their own. The quality of the soil however is generally poor here.

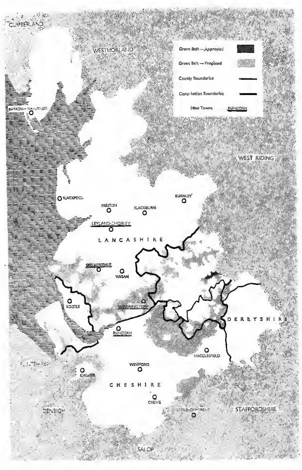

Fig. 27. Green belts: mid-1965

The proposed green belts are those which have been submitted formally or informally by local planning authorities for approval by the Ministry of Housing and Local Government

Table 24 **Green Belt Proposals in the North West**

Green Belt	*Main Purpose*	*Sketch Plan Approved as a Basis for Interim-Development Control*	*Formal Submission*	*Inquiry Held*	*Remarks*
1. Merseyside and South East Lancashire*	To contain the northern parts of the two conurbations, prevent the coalescence of peripheral towns and stop the building up of the corridor linking the conurbations.	July, 1956	September, 1960	July/August, 1961	Interim modifications have been proposed by the Minister of Housing and Local Government to Merseyside section, primarily to meet Liverpool's housing needs.
2. North Cheshire . .	To contain the southern part of the Manchester conurbation and to prevent merging of peripheral towns.	July, 1956	August, 1961	Postponed	Action also deferred on two related town maps and consequential amendments to several existing town maps.
3. West Cheshire . .	To contain the growth of South Merseyside (including the Wirral) and Chester, and to prevent Chester merging with towns to the north.	July, 1956	August, 1961	Postponed	Flintshire County Council have submitted related proposals.
4. South Cheshire . .	To prevent northward growth of Potteries and merging of towns such as Alsager and Kidsgrove.	August, 1958	October, 1961	September, 1962	Only small areas involved, but related to informal proposals of Staffordshire County Council.
5. North West Derbyshire.	To contain eastward growth of Manchester and to preserve identities of Glossop and New Mills.	November, 1956	31st January, 1964	No arrangement made	Only small areas involved, but related to North Cheshire proposals at 2 above.

* Also related to proposals of Bury, Bolton and Oldham County Borough Councils.

7. Decisions on these green belt proposals cannot be deferred indefinitely: otherwise neither the public nor the local authorities in the North West will know to what extent they can be relied on as a basis for future planning and action. On the other hand, green belts represent one of the most powerful instruments available for the shaping of urban growth; and it is important that they should be judged against the wider background of regional economic and physical planning policies. Only if this is done can green belt boundaries be established of a kind which can be realistically defended for the foreseeable future.

8. In the North West it is clear that, despite the provision already made for the accommodation of overspill from the conurbations, further large-scale needs will almost certainly arise before 1981. The extent and nature of the provision made to meet them must depend on whatever policies are adopted in relation to the future growth and distribution of population and employment within the region. Until a full strategy for the future development of the North West has been formulated, it would be premature to reach a final decision on the boundaries of green belts.[1] But in the context of such a strategy, green belts can be expected to have a vital part to play in shaping the massive growth likely to take place in the North West over the next twenty years or more, and in ensuring the availability of attractive countryside within easy reach of the towns. The form of future strategy for the North West is discussed in the final chapter of this report.

[1] By the same token, it would be premature to reach a decision on the South Cheshire green belt proposals until decisions have been taken on the future scale and pattern of growth within the Potteries.

13 Water supplies and sewage disposal: the Region's needs

Industrial and population growth in the North West on the scale which seems probable over the period up to 1981 will add considerably to existing demands on water supplies in the region and on facilities for the disposal of sewage and industrial effluents. The inadequacy of present water supplies in certain parts of the North West has attracted considerable publicity in recent years, largely because of the controversial nature of some of the proposals which have been made for exploiting new sources. At the same time it is well known that some rivers in the region are seriously polluted by sewage and effluents. However, neither of these factors should prove an insuperable obstacle to further extensive development in the North West.

WATER

2. The greatest additional demand for water will arise in the Mersey division, where there is little or no possibility of developing substantial extra local resources. It follows that it will be necessary in coming years to transfer large quantities of water to this part of the region from elsewhere.

3. Possible sources for the additional supplies required include the rivers of Cumberland, Westmorland, North Lancashire and the Cambrian mountains of North Wales. Some ground water is available, but as no single source could be developed to yield a large quantity of water, the exploitation of these resources is unlikely to offer a practical solution. It is possible that ways and means may eventually be found of producing pure water from the sea at a cost which would be economic in this country, but there appears to be little prospect that this will happen in the near future.

4. Although only a provisional assessment of the water resources of the North West and neighbouring areas has so far been made, it seems clear that sufficient water could be made available to meet the needs of the region up to 1981 and well beyond. The problem to be faced is not likely to be an absolute shortage of water resources, but one of reconciling as far as possible the provision of supplies at a reasonable economic cost with the preservation of the amenities of the Lake District and other areas of great natural beauty. No attempt is made in this Report to reach a conclusion on the relative weight to be attached to these two considerations.

5. It is possible that one or other of the schemes which have been proposed for building barrages across Morecambe Bay and the Solway Firth might enable enormous quantities of water to be impounded for use in the North West. Detailed investigations are at present being undertaken into the potential of these two schemes for water supply and into their likely cost. It seems unlikely that either would give rise to serious objections on amenity or land-use grounds. But a preliminary examination of the Morecambe Bay scheme suggests that, even when proper allowance has been made for the other benefits which would be created by the construction of a barrage, it would only offer the prospect of a satisfactory economic return if the likely cost proved to be as low as the most optimistic estimates so far put forward.

6. While it is possible, therefore, that the Morecambe Bay or Solway Firth proposals may provide a solution to the long-term water needs of the North West, it cannot be assumed at this stage that other means of meeting those needs will not be required. A comprehensive long-term plan for water resources in the North West

needs to be prepared, based on investigation of the feasibility of developing various potential sources and taking into account all relevant factors, including effects on land use and amenity. The preparation of a plan of this kind and the carrying out of necessary surveys are now matters for the River Authorities and the Water Resources Board set up under the Water Resources Act, 1963. There is, however, an urgent need for some additional water supplies to be made available in the region in the near future and provision for these will have to be made in advance of such a long-term plan.

7. It is important that future planning of the water resources of the North West should be closely integrated within the broad framework of regional planning policies. Local availability of supplies will need to be borne in mind in planning future developments in the region. At the same time river authorities and water undertakers will need to know well in advance about the likely scale and distribution of future demand. It does not appear, however, from the data at present available that water resources will be a major limiting factor in the choice of sites for future development in the region.

SEWERAGE AND SEWAGE DISPOSAL

8. If future population increases in the North West were distributed fairly uniformly throughout the different river catchment areas, it is unlikely that any significant increase in existing pollution problems would arise in the period up to 1981. Further population growth within parts of the region which are already densely populated is, however, likely to produce difficulties in certain catchment areas, more particularly in the Mersey basin and the catchment areas of the rivers Douglas, Darwen and Calder. Moreover, any major new town developments wherever they are sited, will clearly necessitate new sewage disposal works. Substantial expenditure is therefore likely to be needed in the North West in the period up to 1981 on additional works to provide for the purification of additional sewage and trade wastes and to deal with serious existing pollution problems. But the information at present available does not suggest that any major engineering difficulty is likely to arise.

14 Other aspects of environment

The problem of outworn housing in the North West is part of a much wider problem of obsolescence and dereliction. This Chapter deals briefly with some of the other more important aspects of it, but concludes by stressing some of the region's compensating amenities.

TOWN CENTRE RENEWAL

2. Most of the larger town centres in the North West are in need of drastic renewal, and this is one of the key environmental problems of the region with serious social as well as economic implications. Although it has not been found possible to quantify the problem or to make detailed comparisons between the North West and other regions or between various places within the region, it is clear that the main need for renewal is within the inner areas of the conurbations, in the mid-South Lancashire towns, the towns on the northern side of the Manchester conurbation, and the main centres of North East Lancashire. Moreover, the results of the 1961 Census of Distribution make some tentative comparisons possible between the state of shopping facilities in the North West as a whole and of those in other regions. Since shopping facilities represent a key element in town centre facilities generally, these figures provide some guide to the general state of town centres in the North West compared with other regions.

3. The Census of Distribution showed in fact that of all regions in Great Britain the North West had the lowest number of population per shopping establishment, the lowest value of total retail sales per establishment, and the lowest value of total retail sales per person employed behind the counter (Table 38 of the Statistical Appendix illustrates the position). Bearing in mind the fact that the region has the highest density of population in the country, and the general trend towards larger establishments, economies in manpower, and more intensive use of floorspace, these figures suggest that in the North West there is a greater relative need for the modernization and reorganisation of shopping facilities than in the country as a whole.

4. This is linked with the need to renew a wide range of other town centre facilities important to the life of the community. Indeed, the renewal of these other facilities, which are usually non-profit making in character depends in a large measure upon the success of related plans for providing better shops.

5. Vigorous action is being taken by local authorities throughout the region; renewal schemes for over 100 town centres, three-quarters of them in or around the conurbations are either in progress or in preparation. The most striking of these are the comprehensive long-term schemes being worked out by expert teams of planners for the centres of Liverpool and Manchester. In addition to these and other redevelopment plans within the conurbations, schemes are afoot for all the other main industrial towns in the region and nearly all include arrangements for the segregation of vehicles and pedestrians.

6. But the very scale on which renewal is being planned and the large number of different schemes which are in preparation carry with them certain dangers. Some local authorities in the North West have drawn attention to the risk that the unco-ordinated provision of new shopping facilities may lead to a wasteful use of resources. Local authorities preparing town centre renewal schemes do not always seek an expert assessment of likely trade, and only rarely is it possible for them to make a realistic appraisal

of the role of their own centre in relation to those of others in the region.

7. It would be wrong to try to eliminate competition between shopping centres or to control developments according to a rigid plan which purported to dictate the future hierarchy of centres within the region. Some competition between centres is desirable to stimulate efficiency and some flexibility is necessary in planning to meet changing patterns of demand. Every renewal scheme should, however, be conceived against the hackground of a knowledge of hroad trends and prospects within the region. For this purpose local authorities must have expert advice on matters such as the catchment areas of their own and other centres, the implications of other renewal schemes, the broad structure of retail sales within the region, and the possible effects of future changes in the volume and distribution of purchasing power. Unless this is done, town centre renewal in the North West cannot be expected to proceed satisfactorily.

8. In the present state of knowledge no reliahle predictions or recommendations can be made about the future growth and pattern of retail sales in the region. However, the Department of Town and Country Planning at Manchester University have recently puhlisbed a valuahle report which contains the results of some pioneering work in this field.[1] The preparation of the background information needed as a hasis for sensihle decisions on renewal schemes will take some time, hut this Manchester University report has pointed the way in the techniques which it employs for the analysis of catchment areas and the use made of basic data such as the results of the Censuses of Distribution and the Family Expenditure surveys. Further work needs to be put in hand so that a comprehensive picture of trends and prospects can be huilt up. The results should be of great value both to local authorities in the preparation of renewal schemes and to the Ministry of Housing and Local Government in assessing them.

DERELICT LAND

9. Like most of the older industrial regions of Britain, the North West is scarred hy large tracts of derelict land. This is land which has been so damaged by industrial or other development that it is an eyesore and incapahle of further use without special treatment (for example disused spoil heaps, mineral excavations, areas of subsidence and ahandoned industrial installations).

10. There is a substantial amount of such land in the region which was rendered derelict hefore the introduction of the comprehensive arrangements for planning control provided in tbe Town and Country Planning Act 1947. There are no current figures which precisely measure the present amount of derelict land in different parts of the country, and consequently the Minister of Housing and Local Government asked local authorities in England and Wales in September 1964 to survey derelict land in their areas and inform him hy 31st March, 1965, and thereafter annually, of the results of their surveys. When the first returns have heen analysed, they should provide an up-to-date assessment of the total amount of dereliction and of the proportion requiring treatment; and will show how much was treated in 1964; and what proposals authorities have for treatment schemes in 1965. Suhsequent returns should enahle the net change in derelict land to he assessed.

11. A certain amount of information is already availahle from returns made hy local authorities to tbe Ministry of Housing and Local Government in 1954 and from subsequent reviews of local development plans. From these sources it appears that there are now ahout 15,500 acres of derelict land in the North West. (This figure may require substantial amendment once the new returns have heen analysed.) The greatest concentrations are found in areas such as the South Lancashire coalfield which are associated with long-estahlished mining and manufacturing industries.

12. Under the system of development control introduced hy the Town and Country Planning Act 1947, local planning authorities are enahled to attach conditions to planning permissions for development which require the owner of the land to take steps to prevent it from remaining in a derelict condition once the development is complete. Thus conditions may be attached to planning permissions for such types of development as mineral excavation and tipping designed to secure the restoration of land for further use or, where this is not practicahle, the improvement

[1] "Regional Shopping Centres—a planning report on North West England."

of the land by landscaping. Local planning authorities also have powers for enforcing compliance with such conditions.

13. Whilst planning control thus checks much dereliction at source, the creation of a certain amount is nevertheless inescapable. For example, nothing can be done under present arrangements to prevent the voluntary abandonment of old industrial installations; and substantial areas of land are used for tipping by the National Coal Board and private industry under the provisions of the Town and Country Planning General Development Order 1963, which exempt them from the need to get specific planning permission. Some of this land will eventually add to the present total of dereliction when development ceases.

14. Some derelict sites require treatment more urgently than others—for instance, there is a greater need to deal with spoil heaps in or near residential areas than with disused mineral excavations in the countryside. It is probable, however, that much of the existing total of derelict land in the North West is of such a kind and is so situated as to justify treatment on social grounds. Furthermore, in a region which is subject to heavy demands for land for housing development, it would be worth examining some of the larger areas of dereliction (such as those in the Leigh—Atherton—Tyldesley area) to see if they could provide extra land for open space, playing fields and housing. But the financial return to be gained from the use of reclaimed land is often not high enough to justify the costs of reclamation commercially. The task of dealing with dereliction therefore falls in the main to the local authorities.

15. Local authorities have a wide range of statutory powers available which enable them to deal with derelict land in order to promote the general well-being of their districts. In most cases the costs of reclamation work carried out by local authorities have to be met from their normal financial resources. There are, however, two specific grants available for this work. Under the provisions of section 5 of the Local Employment Act 1960, the Minister of Housing and Local Government may pay grants of 85 per cent of the approved net cost of appropriate schemes to local authorities in development districts. In addition, under the provisions of the National Parks and Access to the Countryside Act 1949 the Minister of Housing and Local Government may pay grants of 75 per cent of the cost of appropriate schemes to authorities in areas of outstanding natural beauty, and the Minister of Land and Natural Resources may make similar payments to authorities in national parks. At the present time in addition to the development districts of Merseyside and Furness, there are national parks or areas of outstanding beauty in the Peak District and Northern Lancashire. One or other of the two specific grants might therefore be available in these areas which contain about one tenth of the present estimated total of derelict land in the North West, but some part of their derelict land may not qualify for grant or may not require treatment.

16. Lancashire County Council and county boroughs in Lancashire have made proposals in their development plans for the treatment of about 3,700 acres of derelict land in the period 1960-1971. In the last 10 years or so Lancashire County Council have treated about 1,000 acres 350 of which were reclaimed for further use and 650 acres of which were improved by tree-planting. They propose to reclaim by 1968 another 660 acres for further use, and to improve by tree-planting 100 acres a year. The National Coal Board have made a small financial contribution towards the Council's programme of tree-planting, and have recently entered into discussion with the Council about arrangements for a comprehensive survey of spoil heaps as a basis for schemes of improvement to be carried out either by the Council or the Board. The Minister of Housing and Local Government has granted in all loan sanctions totalling about £440,000 in respect of schemes of reclamation completed or now being carried out by Lancashire County Council. In addition, schemes in the region's development districts covering 147 acres of derelict land, and likely to attract grants of about £76,000, have recently been approved under section 5 of the Local Employment Act.

17. On the basis of existing information, therefore, the present position may be summed up as follows:

(i) there may be at present about 15,500 acres of derelict land in the region not subject to planning conditions requiring after-treatment: a substantial proportion of this is likely to justify some form of treatment on social grounds;

(ii) the amount of derelict land in the region is subject to continual addition;

(iii) about one tenth of the derelict land in the region lies within areas in which specific Exchequer assistance for treating derelict land is available; and

(iv) it is known that local authorities in the region are now treating derelict land at a rate of not less than 300 acres a year.

18. However, despite the vigorous efforts of certain local authorities, especially Lancashire County Council, little real impact is at present being made on the problem of dereliction over the region as a whole. Partly no doubt this is because Exchequer assistance is not generally available. Some local authorities in the North West have indeed strongly expressed the view that present arrangements for grant are inadequate, that clearance of derelict land should be regarded as a national responsibility calling at least for a general Exchequer subsidy and that unless more generous assistance is made available the region's dereliction problem will not be eliminated within the best part of a century.

19. But finance is not the only obstacle to more rapid progress. Some of the derelict land in the region could be treated at quite a modest cost, but some local authorities seem to lack a sense of urgency in dealing with dereliction in their areas. Since the efforts of an energetic authority can largely be nullified if its neighbours take no action, there seems much to be said for regarding dereliction as a regional problem, to be tackled by a concerted regional campaign.

DRABNESS, UNTIDINESS AND NEGLECT

20. Dereliction undoubtedly contributes to the general impression of drabness, untidiness and neglect which strikes visitors to many of the urban areas of the North West. But it is not the only cause. There is a large number of vacant and partially used sites in the towns of the region which are not derelict in the real sense of the word, but are simply in an untidy or neglected state. The amenities of many residential and other areas are depressed by failure to maintain the exterior decoration of buildings or to keep ancilliary features like fences and walls in proper repair. And there is a general lack of trees. The cumulative effect of many small items of neglect can seriously depress day-to-day living conditions and can lead to a natural tendency to let things slide, so that already poor conditions are allowed to deteriorate further.

21. Much useful work has been done in the last few years by the Civic Trust for the North West and its affiliated societies in tackling this problem, and it is clear that both local authorities and voluntary bodies have a vital part to play in the future in fostering public interest in the improvement of general environmental standards, particularly in the worst areas. However, more still needs to be discovered about the whole question of dereliction and untidiness, its many aspects, and its effect on the environment. Intensive sample surveys are to be carried out within selected areas of the region with a view to categorising dereliction and untidiness more exactly and thus enabling better consideration to be given to questions such as the cost of restoration and the most appropriate agencies for carrying it out. Lancashire County Council and St. Helens Corporation have agreed to assist in carrying out these surveys.

22. In relation to the particular problems of ageing residential areas where the property is basically sound, the renewal design study being undertaken by the Ministry of Housing and Local Government at Deeplish, Rochdale, should provide useful information. This is a study undertaken by a joint team consisting primarily of architects but having the services of town planners, engineers, sociologists, quantity surveyors, and research and estate officers. The main object of the study is to learn more of possible ways and means of improving such areas without substantial redevelopment. It therefore differs from the pilot study initiated at Bolton, which is concerned with the problem involved in the general redevelopment of "twilight" residential areas, where the state of the property or a mixture of uses call for much more than modernisation.

AIR POLLUTION

23. Air pollution has been considered in the context of environmental problems since it is not only an unhealthy and unpleasant thing in itself, but it can also seriously affect the environment, make poor living conditions much worse, and generally discourage efforts to improve matters. In the North West it has undoubtedly had this effect, and smoke control

programmes have a vital part to play in the general rehabilitation of the older industrial areas.

24. Air pollution in the North West has been a problem primarily centred on the two conurbations and the towns of Burnley, Blackburn and Preston and there is a marked correlation between the worst areas of pollution and areas of exceptionally high death rates. In some of the towns of North and South East Lancashire pollution has been aggravated by climatic conditions engendered by the prevailing damp westerly airstream. When a wind blows from the west, as it most frequently does, a combination of natural cloud and fumes frequently drifts towards the Pennine slopes and lodges over these towns, thus polluting their air and depriving them of sunlight.

25. Some local authorities in the North West have taken vigorous action to deal with atmospheric pollution. By March, 1964, "black area" authorities had made smoke control orders covering roughly 20·5 per cent of their premises. In the course of 1964, however, there was a decline in the making of smoke control orders, both in the North West and in the country as a whole.

26. The causes for this decline are not altogether clear. The explanation may lie in actual and impending shortages of gas coke resulting from the run-down in coal-carbonization in the gas-industry. Where these shortages occur, the implementation of smoke control must depend upon the installation of gas, electric or oil appliances, or of closed and openable stoves capable of burning other solid smokeless fuels. The installation of appliances of these kinds is considerably more expensive than the comparatively simple conversion of an open grate so that soft gas coke will burn in it.

27. To meet this situation, revised arrangements were introduced in 1963 for the payment of grants on smokeless fuel appliances. The production of reactive open grate fuels is increasing and it is estimated that within two years supplies of open fire fuels should be adequate to meet the expected demand, although consumers may sometimes have to buy the more expensive reactive fuels instead of the cheaper gas coke. It seems reasonable to hope, therefore, that better progress towards the control of air pollution in the North West will soon be made. It is particularly desirable that co-ordination in smoke control programmes should be achieved so that efforts to reduce pollution in one local authority area are not offset by lack of action in neighbouring areas.

BROAD CONCLUSIONS

28. Slums, general obsolescence, dereliction and neglect all add up to a formidable problem of environmental renewal extending over a wide area of the region. It is plain that this problem cannot be disposed of in a few years and the question which arises is whether it is feasible to break the back of it in say 10 to 15 years or whether the turn of another century will find Lancashire still struggling under the grim heritage of the industrial revolution. For unless the general pace of renewal can be considerably increased, this prospect, with all its implications, must be faced.

COMPENSATING ATTRACTIONS

29. It would however be wrong to conclude this chapter on such a pessimistic note. The problems of the region have been described and emphasised because they are what call for action. But it is only right to balance the impression created by dwelling for a moment on some of the brighter aspects of the environment of the North West. Great though the problems of industrial Lancashire are, there are more compensating amenities than many people are aware of, not least the proximity of some of the finest and largest sandy beaches in the country and the accessibility of the Peak District, Yorkshire Dales, Snowdonia and Lake District National Parks, areas which will become increasingly easy to reach with the development of the road network and the spread of car ownership. Already, in little over half an hour's journey from Manchester one can be wandering over the Pennine moorlands, or surveying the Cheshire Plain from a hill top, and the development of M6 means that trips to the Lake District can be readily made within a single day. Although Lancashire itself is scarred by the industrial revolution, it does of course contain not only part of the Lake District itself, but also the Lancaster Fells and the rich farming lands of the South West Lancashire plain. Even within some of the main industrial areas a journey of only a mile may take one from drabness into unspoiled country landscape.

Part Six

Conclusions

H

15 The Region summed up

POPULATION

Demographic trends clearly reflect the sharp change in the fortunes of the North West region which took place early in this century and which was hastened by the First World War. Throughout the nineteenth century the North West's share in the population of the country as a whole went up sharply, from 8 per cent in 1801 to 14 per cent in 1901. Since then, however, it has gradually fallen back, to less than 13 per cent in 1964. The population of the North West has gone on increasing since the turn of the century, but population growth in the country as a whole has been faster.

2. Migration away from the region has played a part in depressing its rate of population growth. It was heaviest in the 1920's, when on average over 15,000 more people a year were leaving the North West than were moving into it. The rate of net outward movement fell to about half this level in the thirties, but until the last few years there was little evidence of any further fall. Since the beginning of the 'sixties, however, there have been signs that net migration from the North West may be coming to an end. Migration has affected the North West much less seriously over the past half century than it has Scotland, Wales and the Northern region. Between 1951 and 1964 the net outward movement from the North West amounted in all to about 120,000 people or under 2 per cent of the region's present population. At the same time the region's population actually increased by over 280,000 or considerably more than twice as much as the migration loss.

3. Net migration is merely the balance resulting from very much larger gross movements of population between regions; and it is sometimes claimed that the North West loses qualitatively from migration, because it is mainly younger, more enterprising and skilled people who leave the region, and they are not adequately replaced. This may be true so far as certain parts of the region are concerned, particularly those, like North East Lancashire, from which population has been drifting away for many years. But other parts of the North West have been gaining population as a result of migration and there is no conclusive evidence that the region as a whole has been suffering from any serious loss of this kind. Certainly, in terms of numbers a net outflow of about 120,000 people over thirteen years scarcely represents a major problem. It may be a symptom of some weakness in the region's economy, but is hardly a cause of it. And since the North West has a serious housing problem, some small outflow of population may even be beneficial from the region's point of view.

4. In any case, a slow rate of natural increase has been much the more important reason why population growth in the North West in recent years has been at a rate well below the national average. Death rates have been a good deal higher than in England and Wales generally. Indeed, when the figures have been adjusted to take account of the effects of the age, sex and marital structure of the region's population, death rates in the North West in the period 1951-62 are shown to have been on average almost 20 per cent higher than nationally. The probable explanation is that the vast majority of people in the North West live in urban areas. Moreover, many of them have over the years suffered from poor housing conditions and from serious pollution of the atmosphere. The main diseases from which death rates have been particularly high in the North West have been bronchitis, certain forms of cancer, influenza and

heart conditions, and these are all diseases for which death rates are high in conurbations and large towns throughout the country. But more research could well be undertaken into this very fundamental disadvantage from which the North West suffers, particularly as there are signs that death rates in the region are tending to move even further from the national average.

5. Within the region there has been a clear, hut gradual, shift in population patterns in the post-war period. Population has been declining in the older industrial towns on the Pennine slopes to the north and east of Manchester, and in the centre of the Manchester conurhation itself. This decline has mainly been the result of outward migration, but in North East Lancashire, where the rate of decline has been highest, the abnormal age structure of the population has meant that deaths have exceeded births, so that natural decrease has reinforced the effects of migration. Migration has also caused a slight decline in the population of Furness. On the other hand, the areas of most rapid population growth have been the southern fringes of the Manchester and Merseyside conurbations, the coastal towns of the Fylde, and certain urban areas such as Preston, Wigan and Warrington on the main North-South communications route. There has also been a considerable increase in the population of the northern part of the Merseyside conurbation, despite a strong tendency for people to move southwards out into the Wirral and adjoining parts of Cheshire.

6. Looking ahead, the population of the North West is likely to increase substantially between now and the end of the century. Even if net outward migration continues on the scale of recent years, there will probably be at least 800,000 more people living in the region in 1981 than there were in 1964. And if migration came to an end, room might have to be found for 130,000 more than that. Much of this population growth is expected to originate on Merseyside, where hirth rates are well above the national (and regional) level.

EMPLOYMENT

7. The ability of the North West's economy to provide sufficient new jobs to support population growth on this kind of scale will clearly be one of the most important influences on the rate of migration in future. Between 1953 and 1963 the rate of employment growth in the North West was well below the national average. Only 51,000 more employees were at work in the region in 1963 than ten years earlier. In Scotland alone of the other regions of Great Britain did employment increase more slowly. But since at the same time there was a slight fall in the population of working age in the North West, the region generally did not suffer from the high unemployment and heavy outward migration which might otherwise have occurred.

MANUFACTURING

8. Several of the North West's traditional industries have again been reducing the size of their labour forces in recent years—particularly coal-mining, shiphuilding, port operations and above all the textile industry. The loss of nearly 140,000 jobs in textiles was by far the biggest single factor explaining why manufacturing employment fell by 4 per cent in the region between 1953 and 1963, while it was increasing nationally by over 7½ per cent. Despite this fall, manufacturing continues to he much more important in the North West than in Britain generally, providing 46 per cent of the region's total employment as compared with only 38 per cent in the country as a whole.

9. But quite apart from textiles, other sections of manufacturing in the North West have shown some signs of weakness. Out of the thirteen manufacturing Orders in the Standard Industrial Classification, only four increased their labour forces faster in the region than nationally between 1953 and 1963. And even of these four, two (the food industry and the bricks, pottery and glass group) fell behind the national growth rate after 1959, while a third (vehicles) grew rapidly in the North West only as a result of Government intervention which encouraged the motor industry to set up major new plants on Merseyside.

10. Statistics showing the number of employees in employment are available only for very broad sub-divisions of manufacturing, and a full analysis of the reasons for the North West's recent record of slow employment growth must await the provision of more detailed figures. It seems prohable, however, that the region has suffered from structural disadvantages and that a comparatively high proportion of its manufacturing employment has been in sections which have either grown slowly, or actually declined,

over the country as a whole. It therefore looks as if future employment growth in manufacturing in the North West will be very dependent on the pace at which the region's industry proves able to diversify into more rapidly expanding types of production. Further research is needed into this whole question.

11. Substantial changes in fact occurred during the 'fifties in the structure of manufacturing employment in the North West. The influence of declining sections of manufacturing on the region's economy has become a good deal weaker. New firms which settled in the region between 1953 and 1963 are now providing about 50,000 jobs in a wide range of industries, most of them with good growth prospects. In particular, the North West has become a major centre of the motor industry and there are signs that this has begun to stimulate the development of component suppliers in the region.

12. But although the North West's manufacturing base now seems to be sounder than it was ten years ago, by no means all its structural disadvantages have yet disappeared. Employment in manufacturing in the region will probably continue for some time to grow more slowly than in Britain generally, and may even decline further.

PRIMARY INDUSTRIES

13. The primary industries—chiefly agriculture and coal mining—no longer provide a very significant proportion of the North West's total employment. By increasing their productivity, they have reduced their labour forces very rapidly in recent years and this process of contraction seems likely to continue. But the loss of jobs to the region in this section of its economy will be fairly small in total.

SERVICE INDUSTRIES

14. While employment has been declining both in manufacturing and the primary sector in the North West, nearly 140,000 more people had jobs in construction and the service industries in the region in 1963 than ten years earlier. By 1963, the service sector was providing 52 per cent of the region's total employment, compared with 56 per cent nationally. But even in construction and services, employment grew more slowly in the North West than nationally between 1953 and 1963—by just over 10 per cent, as against 15 per cent.

15. Again, part at least of the explanation for this slower rate of growth lies in the fact that the North West suffered from structural disadvantages in the service sector. In Great Britain as a whole, transport and communications was the only service group where the size of the labour force declined between 1953 and 1963: it was also the only form of service employment which was relatively more important in the North West than nationally. However, none of the expanding service industries grew so rapidly in the region as nationally over the decade, although there were some signs of an improvement after 1959. Further detailed study is needed before the prospects for future employment growth in services (especially office jobs) can be properly assessed, but there seems to be no reason to suppose that the number of people employed in this sector of the region's economy will not continue to increase steadily, in line with national and international trends.

EMPLOYMENT TRENDS WITHIN THE REGION

16. Within the region, the pattern of employment growth and decline in the post-war period has been broadly similar to the pattern of population change. Employment has increased most rapidly in the coastal areas of Lancaster/Morecambe, Southport/Ormskirk and especially the Fylde, but in absolute terms the numbers of workers in these three sub-regions remain fairly small. Merseyside has also had growth at a rate well above three times the regional average, but this has been insufficient to match the natural increase in the area's working population and there has been substantial outward migration and persistently high unemployment. Moreover, much of the increase in employment which has taken place on Merseyside has resulted from new projects carried out in the area by firms from other parts of the country.

17. Employment in a large part of the region, mainly to the north and east of Manchester, has been much affected by the decline of the cotton industry. But although the number of jobs available in this area actually decreased between 1953 and 1963, serious unemployment was not a persistent problem, since the size of the working population has also contracted. In North East Lancashire the loss of jobs over the decade was

as high as 10 per cent and even in 1963 the textile industry still provided almost 30 per cent of its remaining employment.

18. In the central and southern part of the region, including much of Cheshire, Wigan, Warrington, St. Helens and the southern half of the Manchester conurbation, employment increased moderately between 1953 and 1963. But in Furness there was little or no employment growth in this period and the area remains highly dependent on Vickers' shipyard and engineering works in Barrow.

PRODUCTIVITY AND INCOMES

19. There is some evidence that output per head in the North West is slightly below the national average, but it appears to have been increasing as rapidly as in Britain generally during the 1950's. Individual incomes and earnings in the region also seem on average to be rather lower than in the country as a whole.

20. However, in the early 'fifties a much higher proportion of the total population was at work in the North West than nationally, and family incomes seem to have been slightly higher than the national average. Over the past decade employment opportunities for women in particular have not expanded as rapidly in the region as in Britain generally, largely because of the contraction of the cotton industry which affected female employment much more severely than male employment. Consequently, although activity rates for both men and women remain higher than the national average, the North West's relative position in terms of household incomes has deteriorated. The average money income of families in the North West now appears to be a little below the level in the country as a whole, but there are few signs of any sluggishness in the growth of expenditure in the region.

EMPLOYMENT PROSPECTS

21. It is a slightly less precarious business to try to predict what increase can be expected to occur in the supply of labour in the North West over the years ahead, than to attempt a forecast of how rapidly employment opportunities and the demand for labour in the region are likely to expand. But both exercises cannot be other than highly speculative.

22. Provisional projections suggest that even if net outward migration comes to an end there is unlikely to be more than a small increase in the manpower resources available in the North West in the period up to 1971; but that towards the end of the 'seventies a more rapid increase would be likely. Renewed migration could even lead to a fall in the region's labour supply in the next few years and would considerably reduce the growth which would otherwise occur after 1971.

23. As for the demand for labour, if total employment continued to grow in the North West at the rate experienced in the period between 1959 and 1963, it is possible that sufficient extra jobs would be created to match virtually the whole of the natural increase in the region's labour supply up to 1971, but not enough to allow in addition for a reduction in unemployment. And in the 'seventies the natural increase in the region's labour force might again outstrip the growth in employment. If employment increased more slowly than this, for example at the rate experienced over the whole decade 1953-63, there would be a considerable shortfall of jobs in the North West even in the period up to 1971, unless there was net migration away from the region. Two other arithmetical projections of employment growth in the North West, based on rather more elaborate assumptions, yield widely different results; one suggests an increase of nearly 190,000 in the number of jobs available in the region in the period between 1963 and 1971, while the other indicates a loss of nearly 60,000 jobs in the region over the same period.

24. Purely arithmetical calculations of this kind need to be supplemented by detailed knowledge of industrial prospects in the North West and it may be desirable to carry out extensive consultations with firms in the region to discover more about their plans for the future. But since there have been signs in recent years that the balance in the region's economy between expanding and declining sectors has been gradually moving in favour of faster overall growth, there is little reason to suppose that over the North West as a whole the increase in the demand for labour in the years immediately ahead will fall short of the supply, unless some serious and unforeseen setback occurs. In some parts of the region, especially Merseyside, continued efforts will probably be required to try to ensure that

full use is made of the available labour resources; but in other areas increasing labour scarcity may arise.

TRANSPORT

25. The North West generally has derived considerable benefit from major transport improvement schemes which have been carried out in recent years. In particular, the M6 motorway now runs through the whole length of the region; the electrification of the main railway line to Birmingham and London is nearing completion; and substantial sums have been invested in providing Manchester and Liverpool with first-class airport facilities. There are still some remaining deficiencies in the region's links with the rest of Britain, but most of these will eventually be removed by the completion of further schemes included in the Ministry of Transport's announced programmes. The Lancashire-Yorkshire motorway, on which advance works are expected to begin within the next two years, is likely to have an especially important influence on the future development of the North West. It will pass through the northern part of the Manchester conurbation, close to a number of the old "cotton" towns, and for the first time will bring the two heavily populated areas of the North West and the industrial West Riding within easy reach of one another by road, thus creating an entirely new east-west axis in the national road network. The new towns which are to be created in the North West will all be well placed in relation to the existing and proposed motorway system and should have excellent road communications right from their inception.

26. Much the most difficult and expensive task in the transport field which remains to be tackled in the North West is that of easing congestion within the two conurbations. Whilst more urban roads will be needed, it is clear that the overall transport needs of the conurbations can only be met by an integrated system of roads and public transport. Such a system must be planned for each conurbation as a whole and as an integral part of planning for land use. Techniques are available for this to be done on a scientific basis and they are being applied in the land use/transport studies now being started in both conurbations. These studies are designed to lead to the adoption of plans for the development of a comprehensive transport system for each conurbation.

27. As far as Merseyside is concerned special attention will have to be given to Liverpool's position as one of Britain's two leading ports for export cargoes. The efficiency of the port is likely to continue to be of great significance to the national economy. For the immediate future it appears that priority needs to be given to measures which will reduce delays within the port area itself, but it will be important in the longer-term to ensure that port traffic is not affected by congestion on roads leading through the conurbation. Since Merseyside's status as an industrial centre is also likely to increase, further improvements may well become necessary in its road links with the national motorway network.

28. Indeed, it is clear that the need for essential industrial and commercial traffic to flow freely between the main centres of industry and population throughout the whole country must continue to be the first consideration in allocating the resources available for road improvements. But there is, in addition, a growing problem of weekend and holiday traffic which already puts a heavy burden on the transport network of the North West. The proximity to the large centres of population in the region of some of the country's most attractive holiday and recreational areas, such as the Lake District, Snowdonia, the Fylde Coast and the Peak District, is a real benefit to those living and working in these often depressing towns. The well-established trend towards increased leisure, coupled with a rapidly increasing number of car owners, will enable more and more people to enjoy their natural desire to get away from the towns into the country or to the sea. This desire can all too easily become frustrated by difficulties of access due to congested roads, and to inadequate foresight in planning for a motorised age within the holiday areas themselves. Insofar as planning should provide for better living conditions for people, both in their work and their leisure, as well as for economic expansion, further provision will have to be made for their recreational traffic, and it must therefore become a factor in determining how resources for roads should be allocated.

29. The North West's principal airports will continue to be those at Manchester and Liverpool,

at the very least until the mid-1980's. Indeed, they may not reach their full capacities until even later and there should be no need for some time to come to consider the development of a third major airport in the region. Manchester and Liverpool airports are not ideally situated in relation to the region as a whole, but given the expenditure already incurred and planned for them it would be uneconomic to replace them by developing the former military airfield at Burtonwood. In any case they will become more easily accessible as the region's road system is improved and there may also be scope for the growth of feeder services from other parts of the region. Blackpool airport already provides useful services and has sufficient capacity to provide for growth in traffic demand in the northern part of the region.

HOUSING NEEDS

30. Even if net outward migration from the North West continues, the housing needs of the region in the period up to 1981 will be enormous—above all because a vast programme of slum clearance has still to be carried through. A revised estimate made locally shows that there are roughly 440,000 dwellings in the North West which are already unfit to be lived in or will become so by 1981—about one in every five in the region. In some areas, every other bouse may need to be replaced. A more generous standard of minimum needs would bring the number of obsolescent houses up to well over half a million, or about a quarter of the region's present stock. Though some of the other older industrial areas of the country face slum problems which are relatively as bad as this, in terms of sheer numbers the position in the North West is without parallel, except perhaps in the West Riding. Of the 2½ million poorest dwellings in the country, about 20 per cent are in the North West.

31. About three-quarters of the region's slums appear to be in the Mersey division and both conurbations have tremendous clearance problems. However, there is some evidence that the slum problems of a number of smaller towns in the region, especially in North East Lancashire, the Wigan-Warrington area and the old "cotton" belt to the north of Manchester, may be more serious than is locally estimated and in relative terms may be even worse than those in the inner areas of the two conurbations.

32. Existing housing shortages in the North West are also heavily concentrated in the Mersey division and are particularly serious on Merseyside. Altogether it is estimated that about 81,000 additional dwellings would be needed in the region to clear the present shortages.

33. The number of additional dwellings required in the Northb West in the period up to 1981 to meet the increase in the number of households resulting from population growth is likely to be about 280,000 if net outward migration comes to an end. If migration continues at recent rates, about 230,000 extra bouses would probably be needed.

URBAN RENEWAL

34. The problem of outworn bousing in the North West is part of a wider problem of obsolescence and dereliction in the older towns of the region. Most of the larger town centres in the North West are in need of drastic renewal and over one bundred comprehensive schemes for redevelopment are in progress or in preparation, about three-quarters of them for centres in or around the two conurbations. Renewal on this scale would add considerably to the future demands whicb will be made on the construction indnstry in the region. There is also a risk that it might lead to a wasteful use of resources. The provision of new shopping facilities is usually one of the key elements in any redevelopment scheme, since other town centre facilities which are important to the life of the community (for example, hotels, theatres and new open spaces) do not normally offer the prospect of a high enough economic return to be able to stand on their own. But the North West already has more shops per head of population than any other part of Britain and the average value of each shop's retail sales is lower than in any other region. It would therefore be valuable if further research could be put in hand, along lines already explored in a study by Mancbester University, with the aim of sbowing what scale of new shopping facilities it would be reasonable to provide in the region and what the future catchment areas of different centres could be expected to be. The results of such research could provide valuable background guidance for those who have to reacb decisions on renewal schemes, without being used as a basis for any attempt to

suppress healthy competition between different shopping centres.

DERELICT LAND

35. Despite the vigorous efforts of some local authorities, particularly Lancashire County Council, large areas of land in the North West remain in a derelict state and are unfit for further use without special treatment. Dereliction is an important element in the general impression of untidiness and neglect which strikes visitors to the region. The wastage of land seems especially tragic in the densely-populated parts of the region, where space for all kinds of uses is at a premium.

36. At present no concerted regional campaign is being mounted to deal with this problem. Partly, no doubt, this is because Exchequer finance for treating derelict land is available only in the cases of national parks, areas of outstanding natural beauty and development districts, and even schemes in development districts only qualify for a grant if it can be shown that they will directly contribute towards an improvement in employment prospects. While assistance from the National Exchequer for the improvement of the region's physical environment must be mainly devoted to the major problem of housing, there is no doubt that the problem of derelict land is an urgent and serious one.

37. The lack of faster progress in the North West seems partly to be due to a lack of a sense of urgency on the part of some local authorities. Since the efforts of an energetic authority can largely be nullified if its neighbours take no action, there seems much to be said for regarding the treatment of derelict land as a regional problem. There may be scope for the local authorities in the worst-affected areas of the region to agree on a programme of treatment which would be spread over a period of years, would aim to deal with the worst cases first and would be financed by contributions from all the authorities taking part. The general appearance of the areas affected can often be improved by comparatively modest expenditure. Given the shortage of technically qualified people available for the job this approach (which has been successfully adopted by the authorities bordering the river Tyne) might produce quicker and more beneficial results for the region as a whole than could be achieved in any other way.

THE GENERAL ENVIRONMENT

38. In addition to the reclamation of derelict land, much more could also be done in undramatic and inexpensive ways to improve the general appearance of the towns in the North West. The Civic Trust for the North West and its affiliated societies have shown what can be done in a number of specific cases. And again some local authorities have extremely good records, whereas others do not. The outsider, while making every allowance for the undoubtedly serious handicaps under which many of the older towns labour, cannot help wondering on occasion whether they try to make the most of what they have.

39. It is also disappointing that progress in dealing with air pollution in the North West has slowed down in the last year or so. Given the climatic disadvantages from which much of the region suffers smoke control can play a particularly valuable part in improving general living conditions. There is therefore every reason why local authorities should press ahead with action under the Clean Air Act as rapidly as possible.

16 The future of the Region

The purpose of this report is not to make recommendations for policy, but to present and analyse the basic data from which future plans for the region must start. This chapter discusses some of the main factors which will have to be taken into account in drawing up such plans.

HOUSING

2. The need to improve its housing stock is the region's dominant problem. There is probably no other comparable part of Britain where the influence of bad housing is so all-pervasive and depressing and affects so many people. The first—and lasting—impression of a visitor to the region is one of astonishment that the housing conditions he sees around him can still exist in a relatively prosperous part of an advanced industrial country.

3. Slum clearance will be by far the biggest element in the region's housing needs over the next fifteen years or so and the task of dealing with the slums will fall almost exclusively to the local authorities. The scale of this task is large in relation to the local authorities' current housing output and the main emphasis for the future must be on the public sector building programme.

4. Recommendations about the rate at which housing should be improved in the region are outside the scope of this report. The decision taken must depend on how much of its resources the country can afford to devote to housing and what share of this will be needed for other regions. Looked at purely from the standpoint of the North West there is a clear need for a big increase over present building rates. To break the back of the problem in ten years would need a formidable effort, but measured against the scale of post-war reconstruction in certain parts of Europe it should not be impossible to attain. It would, however, require not only substantial additional resources, but also radical changes in the structure and methods of the construction industries and in the organisation and management of public authority building programmes. For whatever the financial or physical resources made available, these could well prove serious limiting factors on the rate at which the problem could be solved.

5. The scale and nature of the region's housing problem are such that it should offer a uniquely favourable opportunity for the use of non-traditional building techniques on a very large scale. Some local authorities in the region—most notably Manchester and Liverpool City Councils—are tackling their housing problems energetically and there has been encouraging progress in establishing consortia of local authorities for housing purposes. But the job to be done in the North West is so large and complicated that if a decision in principle were taken to step up the rate of slum-clearance it would seem desirable to take a fresh and thorough look at the organisational problems involved and see what administrative and technical system would be best-fitted to achieve the desired result. Without some such examination there is a real risk that scarce resources—of money, materials and technical skills—might be misdirected on a large scale to the detriment of both the region and the country as a whole. The current re-examination of local government structure in the region by the Local Government Commission may have an important bearing on the ability of housing authorities to deal with the problems they have to face.

6. However, whatever the scale of increase in building rates which may prove practicable,

techniques of conservation and improvement have a vital part to play in extending the life of the many older dwellings in the region which are deficient but capable of satisfactory rehabilitation. The scale of the real slum problem is such that the region cannot afford to be wasteful of its existing stock of dwellings. If the life of many of them can be extended, this will help to relieve the enormous burden which will fall upon the construction industry in the next ten or fifteen years.

INDUSTRIAL DEVELOPMENT

7. In recent years the North West has shown a good deal of resilience in adapting its economic structure to changes in technology and market demand and in the fortunes of its staple industries. For the future the main need is to keep up the momentum of adaptation and to hasten the transfer of resources to those forms of economic activity which have the best prospects for future growth. The structural weaknesses in the region's economy have been reduced over the last ten years but some still remain, in both the manufacturing and service sectors, and unless these are overcome the growth in the region's prosperity could slow down.

8. The main impetus for this must come from those who own and direct existing firms in the region. The North West is fortunate in having a large and varied industrial base from which to diversify its activities. There is much less need for this region than for some of the other old industrial areas of Britain to look to the Government to divert activity from other parts of the country in order to provide its future employment growth. At the same time, the improvement in the region's structure does not yet seem so firmly established that it should in general be considered as a potential source of employment growth for areas of high unemployment in other regions.

9. Indeed, some help in attracting industry from outside the region will still be required. A considerable proportion of the future increase in the region's labour supply will arise on Merseyside; where, despite outward migration and substantial growth in employment, there has nonetheless been persistent unemployment for many years. Since the labour force nationally will be increasing only slowly in the next decade, it will be more than ever desirable that the manpower resources available on Merseyside should be fully engaged in productive employment. But the analysis made in this report indicates that it is unlikely that employment growth generated within the region will be sufficient to achieve this. Experience in recent years has shown that the basic facilities on Merseyside itself—especially those of the port—and in the area round it are attractive to industry. Given a continuation of present efforts to encourage industry from other parts of the country to establish new units which will employ Merseyside labour there is no need for pessimism about the prospects for achieving a permanent solution to the area's unemployment problem.

10. In determining the area within which any special measures to encourage new industrial developments should be applied in future, consideration must be given to the increasing difficulty of finding suitable industrial sites within the present Merseyside development district, and to traffic conditions. Existing physical congestion might be seriously aggravated by the siting of new industrial projects in some parts of Merseyside, especially in the centre of the conurbation. There are signs that Merseyside workers are gradually becoming prepared to travel longer distances to work; many already find their jobs in Ellesmere Port which is outside the development district's boundaries. And as the populations of Skelmersdale and Runcorn new towns begin to build up, the area within which Merseyside labour will be seeking employment will become wider still.

REGIONAL STRATEGY

11. In the period up to 1981, shortage of land is likely to be almost entirely a problem affecting the Manchester and Merseyside conurbations. It will have two main aspects—the need to provide for planned overspill schemes which will largely be required for slum clearance purposes, and the need to provide land for people who move out of the conurbations on their own initiative and want to buy their homes and commute to work. Some important steps have already been taken to meet the conurbations' needs, including decisions to carry out four major schemes under the New Towns Act as well as a number of smaller developments. By and large this provision should be adequate to meet the demands of both conurbations at least until the

mid-1970's. Indeed, if past migration trends continue no further major public overspill schemes are likely to be needed for the Manchester conurbation until after 1981, although a modest amount of additional land for private enterprise housing may be required earlier, when the favoured southern suburbs reach the limit of the population they can accommodate. As for Merseyside, shortage of land both for public authority and private enterprise building is likely to become a major problem again in the late 'seventies, even if migration goes on at the same rate as in recent years. But if migration came to an end, both conurbations would run out of land sooner and would again be faced with enormous overspill problems by about the middle of the 'seventies. And after 1981, in any case, both will continue to generate a demand for more land.

12. Meanwhile, however, although individual areas have urgent problems, no key decisions have to be taken in the short-term. There is time for a long-term planning strategy for the region to be evolved which will provide a frame of reference for future decisions on specific cases. Such a strategy seems to be more than ordinarily necessary in the case of the North West because of the complexity of its overspill problems, the degree of urbanisation which already exists in the two conurbations and the industrial belt around and between them, and the large number of different local planning authorities affected. There is probably more risk of piecemeal decisions leading to poor overall development in the North West than in most other parts of the country.

13. Future strategy will need to be settled in the context of national policies affecting such matters as the distribution of industry, the housing programme and the use of land for agriculture and other purposes. From the standpoint of the region the main need is to evolve a planning strategy which will, so far as possible, support the twin objectives of providing better living conditions for the people of the region and stimulating faster economic growth. Policies for land use, urban renewal, transport, housing and industrial development must keep in step and every effort must be made to ensure that they complement and support each other throughout the region. Physical planning policy in the North West should take account of the prospects of securing sufficient industrial employment and should recognise the desirability of encouraging industry to site new plants in locations which are likely to be favourable to future growth. Distribution of industry policy should take account of the complications involved in carrying through large overspill operations successfully. And large new developments should, wherever possible, be so placed as to take full advantage of the massive investment which is being made in improving the region's transport network. (In particular, it should be borne in mind that the Lancashire-Yorkshire motorway will in the 1970's introduce a strong new east-west dimension into the region's road network which has up to now been predominantly based on a North-South axis.)

14. It is important that, wherever possible, the heavy investment expenditure which will be required in order to meet future overspill needs in the North West should at the same time contribute towards the more rapid renewal of some of the region's older towns. The town development scheme at Widnes and the proposal for the expansion of Warrington to take overspill from the Manchester conurbation are examples of this approach. However, to graft large-scale expansion on to an existing town is a very complex and expensive planning operation, and many older towns in the North West would not be suitable for further expansion of any size, either because there is insufficient land in their immediate vicinity which could readily be developed or because they are in areas which are inherently rather unattractive as places to live in.

15. The recent decision to create a large new town in the Leyland/Chorley area will take advantage of the excellent opportunity which this location offers (particularly in view of the strategic position it will occupy in the motorway network) for a development which will provide attractive living conditions for a big incoming population and which at the same time will be well placed to stimulate faster economic growth in a part of Northern Lancashire where a great deal of renewal and regeneration is needed. There appears to be room in the Leyland/Chorley area to accommodate a population increase of something over 150,000; and if the new development is planned in relation to the renewal of existing towns like Preston and Blackburn as well as Leyland and Chorley themselves, the outcome could be a modern city complex with a population of about half a million. This would provide

a counterbalance to the two conurbations further south. The area as a whole already has a sizeable and varied economic base and tbe new town should prove very attractive to new projects since its communications, present and proposed, are exceptionally good. Both the M6 and the main London-Glasgow railway already pass through the Leyland/Chorley area, and by the early 1970's the Manchester-Preston motorway will have been completed and will provide rapid access also to the Lancashire-Yorkshire motorway.

16. However, if Leyland/Chorley and the other new town developments in the North West are to succeed, a careful watcb will be required throughout the 'seventies to ensure that new employment opportunities become available in step with the rapid huild-up in their populations. Several thousand new jobs a year will be required for Skelmersdale and Runcorn new towns at least until tbe late 1970's, while the Leyland/Chorley area's need for additional employment will be very large until well beyond 1980. Given tbese existing commitments, it bardly seems feasible to think for a good many years to come of building another new town at any considerable distance from the conurbations, wbere its population growth would have to be matcbed by tbe provision of jobs.

17. This is obviously not a matter on whicb it is possihle to come to a firm conclusion so many years in advance. By tbe late 'seventies it migbt be possible to begin building a large new town in tbe Soutb Cbeshire or North Staffordshire areas, perhaps designed to draw population both from the North West and the Birmingham area and hased on the expansion of Midlands industry, but tbis must depend partly on bow regional planning for the West Midlands develops. Or the success of Leyland/Chorley might already be so assured by then that it would be reasonable to think of further development in the north of tbe region, for example a completely independent urban complex centred on Lancaster.

18. But at present it looks as if both puhlic and private overspill needs in the North West for whicb provision bas yet to be made in the period up to 1981 will bave to be met by developments witbin daily travelling distance of existing industrial centres in the region. One possibility would be to pusb out into Northern Chesbire and develop settlements—either large or small—which would at least initially be dormitory areas from wbich much of the working population would commute back into the conurbations to tbeir jobs. Indeed, a good deal of private development has taken place there already, and plans are under way for settling planned overspill from Manchester in various districts within commuting distance of the city. But there would be great disadvantages in accepting further extensive development in Nortb Cheshire. Mucb of the countryside is very attractive and quite apart from its bigh agricultural value it provides a valuable recreational area for the populations of tbe industrial towns.

19. An alternative would be to try to encourage people to move back into the towns to the nortb and east of Manchester which bave been steadily losing population for a number of years. Some of tbese towns have recently been sbowing signs of economic revival and may suffer from chronic labour sbortages if population losses continue. However, it is doubtful wbether they really offer scope for large scale overspill scbemes or private development. Some towns immediately to the north of Mancbester are already contributing towards the conurbation's bousing needs and tbere is probably room for further small scbemes on similar lines to be arranged between the local authorities in future. But some of these towns suffer from climatic and other disadvantages and the amount of suitable land available for further development is very limited. It would therefore not seem wise to plan for a substantial reversal of well-established trends for people to move elsewbere.

20. A further possibility depends very much on the outcome of the study whicb is at present being undertaken into the feasibility and probable cost of a new crossing of the Dee Estuary. If this study shows that sucb a crossing could be huilt at a reasonahle cost, it might well be possible to carry out a major new development on the western side of the estuary whicb could initially depend on employment in Merseyside, but which would be well situated to attract new industrial development at a later stage. A solution of this kind would be extremely attractive, particularly since it might contribute towards the economic growtb of Nortb East Wales, as well as meeting the long-term needs of the North West.

21. A final possibility is that substantial further population growth might be accommodated

within the area between the two conurbations, roughly bounded by Skelmersdale and Wigan in the North and by Runcorn and the Manchester Ship Canal in the South. This might be done either by allowing some further peripheral spread of the two conurbations or by planned expansions of certain other towns in the area between them which lie near the line of the M6 and have shown that they can support successful industrial growth. A good deal of new development has already taken place in this area, and more is planned in the new town schemes for Runcorn and Warrington and the town development scheme at Widnes, in addition to the normal growth of other communities.

22. To go much beyond this and to plan for considerable further development would be very difficult. Such a course would require very heavy additional investment in the road and public transport network to keep traffic congestion within tolerable limits. Moreover, much of the remaining undeveloped land is fragmented and physically unsuitable for development as a result of the presence of peat and mining subsidence. And a large part of the remainder is highly productive land which it has been a major objective of planning policy since the war to keep in agricultural use. There would also be a clear conflict with one of the main aims of current green belt policy—to prevent the coalescence of large built-up areas.

23. Nevertheless, this approach would have some important advantages. It would reinforce well-established trends in terms of population and employment growth, which have emerged in the earlier chapters of this report. The area between the two conurbations is particularly well-placed in relation to the national network of road, rail, sea and air transport and is clearly capable of sustaining large-scale industrial development. The fact that the area in question is already highly urbanised is not necessarily an argument for restricting its further development.

24. In any case, although developments in other parts of the region will accommodate a substantial share of its future population growth, it has to be recognised that for as far ahead as can be foreseen a large majority of the people of the North West will continue to live in the heavily urbanised area comprising the two conurbations and the belt between them. One of the main tasks of planning for the future of the North West will be to improve the environment of this area. To this end, it is essential that the whole area should be planned as a unity in a way which will knit the developments already under way or planned into a comprehensive pattern. Positive planning might create a new kind of city region—with a balanced employment structure and easy access to attractive countryside and coastal districts outside it—and so enable the North West to regain in the late twentieth century the same relative position in the country as it enjoyed a hundred years ago.

Statistical Appendix

This Appendix brings together some of the detailed material which forms the background to the Study. A number of the tables are related to the figures illustrating the text. The first section contains the definitions of the economic planning regions of the country and of the sub-divisions of the North West economic planning region used in this Study; the second deals with population; the third with employment and the fourth with housing.

DEFINITION OF AREAS

2. For the purposes of economic planning eight regions have been established covering all areas of Great Britain outside South East England. The Study deals with the North West economic planning region which, in this connection, has been further sub-divided. These tables give the composition, and the estimated civilian populations, of each of these divisions in 1964.

3. *Table 1* gives the composition of the economic planning regions of Great Britain (see Figure 1). No decision has yet been taken on economic planning machinery for the South East.

4. *Table 2* shows the sub-divisions of the North West Region used in the Study, and *Tables 3, 4* and *5* give the composition of them (see Figure 6). In these and subsequent tables the divisions, sub-divisions and sub-regions of the North West are arranged in descending order of population size.

5. The main divisions of the North West are the Mersey division which embraces the conurbations of South East Lancashire and Merseyside and contains three quarters of the Region's population; and North Lancashire and South Cheshire.

6. The Mersey division has been broken down to three sub-divisions, and further, to fourteen sub-regions; North Lancashire to three sub-divisions and eight sub-regions. The composition of these is given in *Tables 3* and *4* respectively. *Table 5* gives the composition of the four sub-regions of South Cheshire.

POPULATION STATISTICS

7. The chief source of population statistics is the Census, which has been held every 10 years (with the exception of 1941) since 1801. The Registrar General's published estimates of *home population*, based on the Census, include, however, members of the British, Commonwealth, and foreign forces in the area, and it is more appropriate for economic planning purposes to use his specially prepared mid-year estimates of *civilian population*.

8. *Table 6* shows the distribution of population in 1951 and 1964 and the changes occurring between those dates, principally by natural change and migration, for the economic planning regions of Great Britain. *Tables 7, 8* and *9* deal, respectively, with the periods 1951-56, 1956-61 and 1961-64. The changes by migration over these three periods are expressed in terms of mean annual rates in *Table 10* (see Figures 5, 7 and 8).

9. Population changes 1951-64 within the divisions, sub-divisions and sub-regions of the North West economic planning region are similarly dealt with in *Tables 11* to *15* (see Figures 9, 10 and 11).

10. As the estimates used are for civilian population only, allowance has had to be made for reduction in the size of the armed forces over the period. In the absence of information on the destinations of demobilised personnel, the net gain to the civilian population of the country as a whole from this source has been allocated to areas *pro rata* to their populations. The

estimates of net migration have been calculated by deducting from the total population change the estimates of natural change and the allowances made for gains from the armed forces.

11. *Table 16* shows the growth of the population of the North West Region since 1801, and how the area's share of the total population of Great Britain has varied (see Figure 4).

12. *Table 17* provides an analysis of a cross section of the 1961 populations of the North-West and of England and Wales according to birthplace as given in the Census. The increases of population which occurred in these areas over the period 1951-61 are similarly analysed.

EMPLOYMENT STATISTICS

13. The methods by which Ministry of Labour compile employment statistics do not readily enable figures to be produced for areas other than Ministry of Labour regions. The estimates used in this Study relate throughout to Ministry of Labour regions as constituted in 1961 (see Figure 12): these are broadly equivalent to regions as used for the 1961 Census, but they are made up of Ministry of Labour local office areas whose boundaries do not generally correspond with those of local authority areas. In some parts of the country these regions differ materially from the economic planning regions, but in the case of the North West the Ministry of Labour North Western region differs only marginally from the North West economic planning region.

14. The estimated numbers of employees in employment are derived from samples of national insurance cards exchanged during June, July and August, and so are subject to sampling and estimation errors which can be substantial. In Industrial Orders where numbers are small, the errors can be proportionately high. Part-time and occasional workers, as well as school children and students who have jobs, are included as whole units and the estimates also include some persons not in employment at mid-year, who were not registered as unemployed in June, but who exchanged their national insurance cards in June, July and August. For Great Britain as a whole, these estimates account for 90 per cent of the total working population (i.e. people of working age who either work for pay or gain or who register themselves as unemployed). The balance is made up of employers, persons working on their own account, members of Her Majesty's Forces and Women's Services, and the unemployed.

15. In some tables the total number of employed is analysed by the 24 Industrial Orders defined in the Standard Industrial Classification issued by the Central Statistical Office in 1958. This classification is based on industries and not on occupations, and administrative, technical, clerical and ancillary staff are included in the figures of employment for the industry concerned. The Ministry of Labour's data for years prior to 1959 is based on the 1948 version of the Standard Industrial Classification. For the purposes of the Study Ministry of Labour have adjusted this as far as is possible to produce estimates for 1953 and for the period 1953-59 which are reasonably comparable with those available for 1959 and later years.

16. The regional estimates do not take full account of cases where a person is employed in a different region from that in which his national insurance card is exchanged. Before 1955, no adjustments at all were made to regional estimates on this account, but since that date, allowance has been made for the greater proportion of these cases, and in order to provide reasonably comparable figures for years before 1955, approximate retrospective adjustments have been made to the figures.

17. Ministry of Labour's estimates of numbers employed in each of their regions of Great Britain at mid-year for the years 1953-63 are given in *Tables 18*, *19* and *20*. *Table 19* deals with total employed; *Table 19* and *Table 20* cover males and females respectively (see Figure 13).

18. In *Table 21* the percentage changes in estimated numbers employed which occurred over the periods 1953-59 and 1959-63 for each Ministry of Labour region are analysed in terms of four broad categories—primary, manufacturing, construction and service industries. The composition of these categories, in terms of Industrial Orders, is seen in Table 22 *et seq.*

19. *Table 22* gives the estimated total numbers employed in each Industrial Order in Ministry of Labour North Western region for the years 1953, 1959 and 1963. Equivalent estimates are given for Great Britain as a whole. *Table 23* and *Table 24* cover males and females respectively.

20. The percentage changes which occurred over

the periods 1953-59 and 1959-63 in the numhers employed hy Industrial Orders in the North Western region and in Great Britain are given in *Table 25*. Similar estimates are given for males in *Table 26* and for females in *Table 27*. The same information expressed in terms of mean annual compound rates of change is given in *Tables 28*, *29* and *30*. These percentage changes can indicate the order of magnitude of the change only in a very broad way. They are given to one decimal place for industries in which the number employed in the North West exceeds 10,000, but they should he interpreted with the utmost caution.

21. The "activity rate" i.e. the proportion of the home population constituted by employees (employed and unemployed) for each Ministry of Lahour region for the years 1953-63 is given in *Table 31*. "Activity rates" for males, including rates applicahle to the male population aged 65 and over, are given in *Table 32*. The rates for females, including those applicable to the female population aged 60 and over, are given in *Table 33*. As these "activity rates" are calculated on Ministry of Lahour estimates of employees they do not cover employers and self-employed.

22. *Table 34* provides a comparison of unemployment rates for total, male and female employees in the North Western region and for Great Britain as a whole for the years 1953-63 (see Figure 14).

23. *Table 35* analyses the estimated movement of national insurance cards of employees between the North West Region and other Ministry of Lahour Regions over the period 1953-1963. *Table 35* provides estimates of the total inward and outward movements involved over the period for each of the Ministry of Labour Regions. For a numher of reasons, the movement of cards is an imperfect reflection of migration. Only employees who have insurance cards in each of the two years heing compared can be included in the estimates. Hence, migrants into Great Britain would not appear in the statistics in the year in which they entered the country: neither would those persons who moved to another part of the country to take their first job, nor those who moved on retiring from work. Estahlished civil servants (who do not have cards) would also he excluded. In addition, an insurance card may be exchanged in a different region in successive years, though the employee continues to work in the same locality. Alternatively, a person who merely transfers his joh across a regional boundary without moving his home can be included as a migrant.

24. For Study purposes Ministry of Labour have prepared some approximate figures of total numbers employed in 1953 and 1963 for twelve sub-divisions of their North Western region. These sub-divisions (see Figure 17) are aggregations of Ministry of Lahour local office areas and do not coincide with the sub-divisions or sub-regions of the North West economic planning region defined in Tahles 2-5. The Ministry of Lahour estimates are given in *Table 37* (see Figure 18). Although all the percentage changes given in the table for 1953-63 and 1959-63 are calculated, for the sake of uniformity, to one decimal place their accuracy cannot he relied upon to this extent for areas such as Lancaster-Morecambe, Southport-Ormskirk, Furness and High Peak where the numbers employed are relatively small.

25. *Table 38* gives the distribution of shops in relation to population and estimated sales per estahlishment and per person engaged. The information is derived from the Census of Distribution 1961 and is for standard regions of Great Britain.

HOUSING STATISTICS

26. *Table 39* provides some indicators to the age and condition of the Region's stock of dwellings. It gives locally derived estimates of the number of dwellings which, whether by reason of unfitness or a need to make way for re-development, will be ripe for demolition during the period 1964-81. These estimates, in effect, constitute opinions of what ought to be done: they are not the product of an actual clearance programme. Set alongside these estimates are various items of readily available data which are pointers to the scale of obsolescence. These cover the number of dwellings enumerated at the 1861 and 1881 Censuses, viz. dwellings which, if still in existence would he 100 years old now or by 1981; dwellings with no fixed bath and dwellings with a low rateable value.

27. *Table 40* identifies those local authority areas in the North West where more than 3·5 per cent of the population in private households were living in seriously over-crowded conditions

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represented by an occupancy rate of more than $1\frac{1}{2}$ persons per room at the time of the 1961 Census. The areas are listed in descending order of the proportion of the population in these conditions.

28. *Table 41* itemises by sub-divisions the diagnosis of the region's housing problem developed in Chapter 9.

29. *Table 42* is an explanatory note of the method used in the Study for calculating future increases in households and of the assumptions made regarding planned overspill.

NOTE: Figures have been rounded to the nearest final digit and, in some tables, there may be a slight discrepancy between the sum of the constituent items and the total as shown.

LIST OF TABLES

HOUSING STATISTICS

Table 1 **Economic planning regions of Great Britain**

Composition of economic planning regions	*1964 civilian population (thousands)*
(1)	(2)
All areas	52,319
Scotland	5,180
Northern Region	3,287
Cumberland	296
Durham	1,532
Northumberland	826
Westmorland	67
Yorkshire, North Riding	567
Yorkshire and Humberside Region	4,672
Lincolnshire: Parts of Lindsey excluding Lincoln C.B.	438
Yorkshire, East Riding	536
Yorkshire, West Riding	3,698
North West Region	6,662
Cheshire	1,430
Derbyshire (part) (*see Note 1*)	70
Lancashire	5,162
Wales and Monmouthshire	2,668
Anglesey	52
Breconshire	54
Caernarvonshire	120
Cardiganshire	53
Carmarthenshire	167
Denbighshire	177
Flintshire	154
Glamorgan	1,242
Merionethshire	38
Monmouthshire	456
Montgomeryshire	44
Pembrokeshire	93
Radnorshire	18
East Midland Region	3,226
Derbyshire (part) (*see Note 1*)	831
Leicestershire	701
Lincolnshire: Parts of Holland	105
Lincolnshire: Parts of Kesteven and Lincoln C.B.	217
Northamptonshire	416
Nottinghamshire	932
East Midlands Region *continued*	
Rutland	24
West Midland Region	4,913
Herefordshire	135
Shropshire	307
Staffordshire	1,796
Warwickshire	2,079
Worcestershire	596
South West Region	3,584
Cornwall	341
Devon	832
Dorset	322
Gloucestershire	1,029
Somerset	619
Wiltshire	441
South East England (*see Note 2*)	18,129
Bedfordshire	406
Berkshire	548
Buckinghamshire	523
Cambridgeshire	198
Isle of Ely	90
Essex	2,362
Hampshire	1,388
Hertfordshire	892
Huntingdonshire	85
Kent	1,775
London	3,177
Middlesex	2,237
Norfolk	566
Oxfordshire	326
Peterborough, Soke of	78
Suffolk, East	354
Suffolk, West	132
Surrey	1,768
Sussex, East	692
Sussex, West	435
Isle of Wight	95

NOTES

1. The area of Derbyshire falling within the North-West Region comprises Buxton M.B., Glossop M.B., New Mills U.D., Whaley Bridge U.D. and Chapel en le Frith R.D.
2. At time of going to press, no decision has yet been taken on economic planning machinery for the South East

Table 2 **Divisions of the North West Region**

Area	*1964 civilian population (thousands)*
(1)	(2)
All areas	6,662
Mersey (*see Table 3*)	4,981
South East Lancashire	2,660
Merseyside	1,697
Warrington-Wigan area	624
North Lancashire (*see Table 4*)	1,279
Ribble	764
Lancaster-Fylde	410
Furness	105
South Cheshire (*see Table 5*)	401

Table 3 **Mersey**

Constituent areas	*1964 civilian population (thousands)*
(1)	*(2)*
All areas	4,981·5
South East Lancashire	2,660·3
Manchester sub-region	1,226·2
Manchester C.B.	644·4
Salford C.B.	150·3
Audenshaw U.D.	11·9
Denton U.D.	32·8
Droylsden U.D.	25·5
Eccles M.B.	42·5
Failsworth U.D.	21·5
Irlam U.D.	16·3
Middleton M.B.	58·4
Prestwich M.B.	34·0
Stretford M.B.	60·3
Swinton and Pendlebury M.B.	41·1
Urmston U.D.	43·1
Worsley U.D.	44·1
Stockport sub-region	323·8
Stockport C.B.	142·5
Bredbury and Romiley U.D.	24·3
Cheadle and Gatley U.D.	51·6
Hazel Grove and Bramhall U.D.	32·3
Hyde M.B.	35·4
Marple U.D.	19·9
New Mills U.D.	8·7
Whaley Bridge U.D.	5·3
Disley R.D.	3·8
Oldham sub-region	237·5
Oldham C.B.	112·7
Ashton-under-Lyne M.B.	49·3
Chadderton U.D.	32·6
Crompton U.D.	14·0
Lees U.D.	3·7
Mossley M.B.	9·7
Royton U.D.	15·6
Bolton sub-region	234·6
Bolton C.B.	159·2
Farnworth M.B.	26·8
Horwich U.D.	16·1
Kearsley U.D.	10·5
Little Lever U.D.	5·6
Turton U.D.	16·4
Altrincham sub-region	184·2
Alderley Edge U.D.	3·7
Altrincham M.B.	41·2
Bowden U.D.	4·7
Hale U.D.	16·1
Knutsford U.D.	10·0
Lymm U.D.	8·0
Sale M.B.	53·4
Wilmslow U.D.	26·7
Bucklow R.D.	20·5
Bury sub-region	152·4
Bury C.B.	62·1
Heywood M.B.	27·9
Radcliffe M.B.	26·9
Ramsbottom U.D.	14·0
Tottington U.D.	6·1
Whitefield U.D.	15·5
Rochdale sub-region	116·6
Rochdale C.B.	86·2
Littleborough U.D.	10·8
Milnrow U.D.	8·4
Wardle U.D.	4·2
Whitworth U.D.	7·0
Leigh sub-region	83·4
Atherton U.D.	19·5
Leigh M.B.	46·4
Tyldesley U.D.	17·5
Stalybridge sub-region	64·0
Dukinfield M.B.	17·3
Glossop M.B.	18·7
Longdendale U.D.	4·9
Stalybridge M.B.	21·7
Tintwistle R.D.	1·5
High Peak sub-region	37·6
Buxton M.B.	19·4
Chapel en le Frith R.D.	18·2

Table 3 **Mersey** *continued*

Constituent areas	*1964 civilian population (thousands)*	*Constituent areas*	*1964 civilian population (thousands)*
(*1*)	(*2*)	(*1*)	(*2*)
Merseyside	1,696·8	**Warrington-Wigan area**	624·4
North Merseyside sub-region	1,277·1	**Wigan sub-region**	390·4
Bootle C.B.	83·0	St. Helens C.B.	105·3
Liverpool C.B.	728·9	Wigan C.B.	77·2
Southport C.B.	80·1	Abram U.D.	6·1
Crosby M.B.	59·9	Ashton-in-Makerfield U.D.	21·2
Formby U.D.	14·3	Aspull U.D.	6·9
Huyton-with-Roby U.D.	67·7	Billinge and Winstanley U.D.	8·3
Kirkby U.D.	57·3	Blackrod U.D.	4·1
Litherland U.D.	25·2	Golborne U.D.	23·4
Ormskirk U.D.	24·3	Haydock U.D.	12·4
Prescot U.D.	13·3	Hindley U.D.	20·7
Rainford U.D.	5·9	Ince-in-Makerfield U.D.	17·7
West Lancashire R.D.	61·9	Newton-le-Willows U.D.	21·9
Whiston R.D.	55·1	Orrell U.D.	11·4
		Skelmersdale U.D.	6·4
		Standish with Langtree U.D.	10·1
		Upholland U.D.	8·9
South Merseyside sub-region	419·7	Westhoughton U.D.	17·2
		Wigan R.D.	11·0
Birkenhead C.B.	143·5	**Warrington sub-region**	233·9
Wallasey C.B.	103·3		
Bebington M.B.	54·1	Warrington C.B.	75·1
Ellesmere Port M.B.	48·2	Runcorn U.D.	27·2
Hoylake U.D.	32·6	Widnes M.B.	53·7
Neston U.D.	14·0	Runcorn R.D.	41·9
Wirral U.D.	24·1	Warrington R.D.	36·1

Table 4 **North Lancashire**

Constituent areas	*1964 civilian population (thousands)*
(1)	*(2)*
All areas	1,279·0
Ribble	764·4
Blackburn sub-region	251·2
Blackburn C.B.	103·6
Accrington M.B.	38·5
Church U.D.	5·8
Clayton-le-Moors U.D.	6·4
Clitheroe M.B.	12·5
Darwen M.B.	29·1
Great Harwood U.D.	10·7
Oswaldtwistle U.D.	12·5
Rishton U.D.	5·4
Blackburn R.D.	17·1
Clitheroe R.D.	9·6
Preston sub-region	220·8
Preston C.B.	110·4
Fulwood U.D.	17·1
Leyland U.D.	20·7
Longridge U.D.	5·1
Walton-le-Dale U.D.	21·6
Preston R.D.	46·0
Burnley sub-region	169·8
Burnley C.B.	79·3
Barrowford U.D.	4·7
Brierfield U.D.	7·3
Colne M.B.	19·0
Nelson M.B.	31·5
Padiham U.D.	10·1
Trawden U.D.	1·9
Burnley R.D.	16·0
Chorley sub-region	68·0
Adlington U.D.	4·5
Chorley M.B.	31·1
Withnell U.D.	2·8
Chorley R.D.	29·6
Rossendale sub-region	54·6
Bacup M.B.	16·9
Haslingden M.B.	14·2
Rawtenstall M.B.	23·5
Lancaster-Fylde	409·9
Blackpool and Fylde sub-region	292·0
Blackpool C.B.	150·7
Fleetwood M.B.	28·4
Kirkham U.D.	6·0
Lytham St. Annes M.B.	36·5
Poulton-le-Fylde U.D.	14·7
Preesall U.D.	3·0
Thornton Cleveleys U.D.	22·0
Fylde R.D.	16·6
Garstang R.D.	15·4
Lancaster sub-region	117·3
Carnforth U.D.	4·2
Lancaster M.B.	47·8
Morecambe and Heysham M.B.	40·6
Lancaster R.D.	15·4
Lunesdale R.D.	9·2
Furness	104·7
Furness sub-region	104·7
Barrow-in-Furness C.B.	65·2
Dalton-in-Furness U.D.	10·4
Grange U.D.	2·9
Ulverston U.D.	10·4
North Lonsdale R.D.	15·8

Table 5 South Cheshire

Constituent areas	*1964 civilian population (thousands)*	*Constituent areas*	*1964 civilian population (thousands)*
(1)	*(2)*	*(1)*	*(2)*
All areas	401·4		
Crewe sub-region	112·5	Macclesfield sub-region	102·0
Alsager U.D.	9·1	Bollington U.D.	5·7
Crewe M.B.	52·9	Congleton M.B.	17·4
Nantwich U.D.	11·0	Macclesfield M.B.	38·5
Sandbach U.D.	10·3	Congleton R.D.	15·2
Nantwich R.D.	29·1	Macclesfield R.D.	25·1
Chester sub-region	105·7	Northwich sub-region	81·2
Chester C.B.	59·5	Middlewich U.D.	7·5
Chester R.D.	30·9	Northwich U.D.	19·4
Tarvin R.D.	15·4	Winsford U.D.	14·1
		Northwich R.D.	40·2

Table 6 **Civilian population changes**
Great Britain 1951-64

(thousands)

Area	Distribution 1951		Changes 1951-64: Tatal		Changes 1951-64: By births and deaths		Changes 1951-64: Estimated gain fram armed farces	Changes 1951-64: Estimated net balance by migration		Distribution 1964	
	Na.	Per cent	No.	Per cent	No.	Per cent	Na.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Great Britain	48,333·3	100·0	3,985·7	8·2	3,306·9	6·8	410·5	268·3	0·6	52,319·0	100·0
Scotland	5,064·3	10·5	115·2	2·3	458·1	9·0	43·0	−386·0	−7·6	5,179·5	9·9
Northern Region	3,095·0	6·4	192·2	6·2	258·7	8·4	26·1	−92·6	−3·0	3,287·2	6·3
Yorkshire and Humberside Region	4,459·1	9·2	212·7	4·8	275·4	6·2	37·2	−99·8	−2·2	4,671·8	8·9
North West Region	6,380·0	13·2	281·9	4·4	349·4	5·5	53·2	−120·6	−1·9	6,661·9	12·7
Wales and Monmouthshire	2,569·0	5·3	98·7	3·8	118·1	4·6	21·4	−40·7	−1·6	2,667·7	5·1
East Midland Region	2,891·7	6·0	333·8	11·5	229·2	7·9	24·8	79·8	2·8	3,225·6	6·2
West Midland Region	4,383·0	9·1	529·8	12·1	396·1	9·0	37·7	96·0	2·2	4,912·8	9·4
South West Region	3,228·9	6·7	354·9	11·0	154·1	4·8	27·5	173·3	5·4	3,583·8	6·8
South East England	16,262·3	33·6	1,866·4	11·5	1,067·8	6·6	139·7	658·9	4·1	18,128·7	34·7

Table 7 Civilian population changes
Great Britain 1951-56

(thousands)

Area	*Distribution 1951*		*Changes 1951-56*: *Total*		*Changes 1951-56*: *By births and deaths*		*Changes 1951-56*: *Estimated gain from armed forces*	*Changes 1951-56*: *Estimated net balance by migration*		*Distribution 1956*	
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*	*No.*	*No.*	*Per cent*	*No.*	*Per cent*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Great Britain	48,333·3	100·0	901·0	1·9	1,013·4	2·1	74·6	−187·0	−0·4	49,234·3	100·0
Scotland	5,064·3	10·5	19·0	0·4	153·3	3·0	5·6	−140·0	−2·8	5,083·3	10·3
Northern Region	3,095·0	6·4	47·4	1·5	89·9	2·9	4·9	−47·4	−1·5	3,142·4	6·4
Yorkshire and Humberside Region	4,459·1	9·2	45·6	1·0	85·0	1·9	7·1	−46·6	−1·0	4,504·7	9·1
North West Region	6,380·0	13·2	51·6	0·8	101·7	1·6	10·1	−60·1	−0·9	6,431·6	13·1
Wales and Monmouthshire	2,569·0	5·3	18·8	0·7	39·7	1·5	4·1	−24·9	−1·0	2,587·8	5·3
East Midland Region	2,891·7	6·0	88·2	3·1	71·4	2·5	4·6	12·2	0·4	2,980·0	6·0
West Midland Region	4,383·0	9·1	125·2	2·9	121·5	2·8	7·0	−3·3	—	4,508·2	9·2
South West Region	3,228·9	6·7	62·9	1·9	46·0	1·4	5·2	11·8	0·4	3,291·8	6·7
South East England	16,262·3	33·6	442·3	2·7	305·0	1·9	26·0	111·3	0·7	16,704·6	33·9

Table 8 Civilian population changes

Great Britain 1956-61

(thousands)

Area	Distribution 1956		Changes 1956-61							Distribution 1961	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Great Britain	49,234·3	100·0	1,812·1	3·7	1,300·2	2·6	281·7	230·2	0·5	51,046·4	100·0
Scotland	5,083·3	10·3	72·1	1·4	185·3	3·6	28·7	−141·9	−2·8	5,155·4	10·1
Northern Region	3,142·4	6·4	92·1	2·9	103·7	3·3	18·0	−29·5	−0·9	3,234·5	6·3
Yorkshire and Humberside Region	4,504·7	9·1	76·8	1·7	107·4	2·4	25·5	−56·1	−1·3	4,581·4	9·0
North West Region	6,431·6	13·1	110·0	1·7	133·7	2·1	36·6	−60·3	−0·9	6,541·6	12·8
Wales and Monmouthshire	2,587·8	5·3	37·7	1·5	44·6	1·7	14·7	−21·7	−0·8	2,625·4	5·1
East Midland Region	2,980·0	6·0	140·6	4·7	88·3	3·0	17·1	35·1	1·2	3,120·5	6·1
West Midland Region	4,508·2	9·2	234·8	5·2	154·5	3·4	25·9	54·4	1·2	4,743·0	9·3
South West Region	3,291·8	6·7	169·5	5·2	60·1	1·8	19·0	90·5	2·8	3,461·3	6·8
South East England	16,704·6	33·9	878·6	5·3	422·7	2·5	96·2	359·7	2·2	17,583·2	34·4

Table 9 Civilian population changes
Great Britain 1961-64

(thousands)

Area	Distribution 1961		Changes 1961-64							Distribution 1964	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migratian			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Great Britain	51,046·4	100·0	1,272·6	2·5	993·3	1·9	54·1	225·1	0·5	52,319·0	100·0
Scotland	5,155·4	10·1	24·1	0·5	119·5	2·3	8·6	−104·1	−2·0	5,179·5	9·9
Northern Region	3,234·5	6·3	52·7	1·6	65·2	2·0	3·2	−15·7	−0·5	3,287·2	6·3
Yorkshire and Humberside Region	4,581·4	9·0	90·4	2·0	83·0	1·8	4·5	2·9	0·1	4,671·8	8·9
North West Region	6,541·6	12·8	120·3	1·8	114·0	1·7	6·5	−0·2	—	6,661·9	12·7
Wales and Monmouthshire	2,625·4	5·1	42·3	1·6	33·8	1·3	2·6	5·9	0·2	2,667·7	5·1
East Midland Region	3,120·5	6·1	105·1	3·4	69·5	2·2	3·1	32·5	1·0	3,225·6	6·2
West Midland Region	4,743·0	9·3	169·8	3·6	120·2	2·5	4·7	44·9	1·0	4,912·8	9·4
South West Region	3,461·3	6·8	122·5	3·5	48·0	1·4	3·4	71·0	2·1	3,583·8	6·8
South East England	17,583·2	34·4	545·5	3·1	340·1	1·9	17·4	187·9	1·1	18,128·7	34·7

Table 10 **Civilian population: mean annual changes by migration**
Great Britain 1951-56, 1956-61 and 1961-64 (thousands)

Area	1951-56		1956-61		1961-64	
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Great Britain	−37·4	−0·08	46·0	0·09	75·1	0·15
Scotland	−28·0	−0·55	−28·4	−0·55	−34·7	−0·67
Northern Region	−9·5	−0·30	−5·9	−0·19	−5·2	−0·16
Yorkshire and Humberside Region	−9·3	−0·21	−11·2	−0·25	1·0	0·02
North West Region	−12·0	−0·19	−12·1	−0·19	−0·1	—
Wales and Monmouthshire	−5·0	−0·19	−4·3	−0·17	2·0	0·07
East Midland Region	2·4	0·08	7·0	0·23	10·8	0·34
West Midland Region	−0·7	−0·01	10·9	0·24	15·0	0·31
South West Region	2·4	0·07	18·1	0·54	23·7	0·67
South East England	22·3	0·14	71·9	0·42	62·6	0·35

Table 11 **Civilian population changes**
North West Region 1951-64

(thousands)

Area	Distribution 1951		Changes 1951-64							Distribution 1964	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
North West Region	6,380·0	100·0	281·9	4·4	349·4	5·5	53·2	−120·6	−1·9	6,661·9	100·0
Mersey	4,781·4	74·9	200·1	4·2	328·4	6·9	39·8	−168·1	−3·5	4,981·5	74·8
South East Lancashire	2,601·1	40·8	59·2	2·3	122·8	4·7	21·5	−85·1	−3·3	2,660·3	39·9
Manchester sub-region	1,253·7	19·7	−27·5	−2·2	84·9	6·8	10·3	−122·8	−9·8	1,226·2	18·4
Stockport sub-region	270·3	4·2	53·5	19·8	12·3	4·5	2·3	38·9	14·4	323·8	4·8
Oldham sub-region	245·8	3·9	−8·3	−3·4	4·0	1·6	2·0	−14·3	−5·8	237·5	3·6
Bolton sub-region	236·3	3·7	−1·7	−0·7	5·1	2·2	1·9	−8·7	−3·7	234·6	3·5
Altrincham sub-region	142·0	2·2	42·2	29·7	8·7	6·2	1·3	32·2	22·7	184·2	2·8
Bury sub-region	144·2	2·3	8·3	5·7	2·1	1·4	1·2	5·0	3·5	152·4	2·3
Rochdale sub-region	119·0	1·9	−2·4	−2·0	1·2	1·0	1·0	−4·6	−3·9	116·6	1·7
Leigh sub-region	86·9	1·4	−3·4	−3·9	3·0	3·5	0·7	−7·2	−8·2	83·4	1·2
Stalybridge sub-region	64·8	1·0	−0·8	−1·2	0·4	0·6	0·5	−1·7	−2·7	64·0	1·0
High Peak sub-region	38·0	0·6	−0·5	−1·2	1·1	2·9	0·3	−1·9	−5·0	37·6	0·6
Merseyside	1,584·9	24·8	111·9	7·1	162·7	10·3	13·3	−64·1	−4·0	1,696·8	25·5
North Merseyside sub-region	1,207·8	18·9	69·3	5·7	132·9	11·0	10·1	−73·7	−6·1	1,277·1	19·2
South Merseyside sub-region	337·1	5·9	42·6	11·3	29·8	7·9	3·2	9·6	2·6	419·7	6·3
Warrington-Wigan area	595·4	9·3	29·0	4·9	42·9	7·2	5·0	−18·9	−3·2	624·4	9·4
Wigan sub-region	380·0	5·9	10·5	2·8	22·0	5·8	3·2	−14·7	−3·9	390·5	5·9
Warrington sub-region	215·4	3·4	18·5	8·6	20·9	9·7	1·8	−4·2	−1·9	233·9	3·5

North Lancashire	1,238·4	19·4	40·6	3·3	1·4	0·1	10·3	28·9	2·3	1,279·0	19·2
Ribble	763·6	12·0	0·8	0·1	8·6	1·1	6·3	−14·1	−1·8	764·4	11·5
Blackburn sub-region	256·3	4·0	−5·1	−2·0	−2·7	−1·0	2·1	−4·5	−1·8	251·2	3·8
Preston sub-region	203·7	3·2	17·1	8·4	11·7	5·8	1·7	3·7	1·8	220·8	3·3
Burnley sub-region	179·3	2·8	−9·5	−5·3	−2·3	−1·3	1·5	−8·7	−4·8	169·8	2·6
Chorley sub-region	66·4	1·0	1·6	2·4	2·1	3·2	0·5	−1·0	−1·7	68·0	1·0
Rossendale sub-region	57·9	0·9	−3·3	−5·7	−0·2	−0·4	0·5	−3·6	−6·2	54·6	0·8
Lancaster-Fylde	368·8	5·8	41·1	11·1	−9·2	−2·5	3·1	47·2	12·8	409·9	6·1
Blackpool and Fylde sub-region	258·3	4·0	34·4	13·3	−9·0	−3·5	2·2	41·2	16·0	292·7	4·3
Lancaster sub-region	110·5	1·7	6·7	6·1	−0·2	−0·2	0·9	6·0	5·4	117·3	1·8
Furness	106·0	1·7	−1·3	−1·3	2·0	1·9	0·9	−4·2	−4·0	104·7	1·6
South Cheshire	360·2	5·6	41·2	11·4	19·5	5·4	3·1	18·6	5·2	401·4	6·0
Crewe sub-region	103·5	1·6	9·0	8·6	5·1	4·9	0·9	3·0	2·9	112·5	1·7
Chester sub-region	91·7	1·4	13·0	14·1	6·7	7·3	0·8	5·5	6·0	105·7	1·6
Macclesfield sub-region	89·2	1·4	12·8	14·3	2·5	2·8	0·8	9·5	10·6	102·0	1·5
Northwich sub-region	74·8	1·2	6·4	8·7	5·2	7·0	0·6	0·6	0·9	81·2	1·2

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Table 12 **Civilian population changes**
North West Region 1951-56

(thousands)

Area	Distribution 1951		Changes 1951-56							Distribution 1956	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
North West Region	6,380·0	100·0	51·6	0·8	101·7	1·6	10·1	−60·1	−0·9	6,431·6	100·0
Mersey	4,781·4	74·9	40·7	0·9	99·3	2·1	7·6	−66·2	−1·4	4,822·1	75·0
South East Lancashire	2,601·1	40·8	2·5	0·1	32·2	1·2	4·1	−33·8	−1·3	2,603·6	40·5
Manchester sub-region	1,253·7	19·7	−2·3	−0·2	26·4	2·1	2·0	−30·7	−2·4	1,251·4	19·5
Stockport sub-region	270·3	4·2	7·4	2·8	1·4	0·5	0·4	5·7	2·1	277·8	4·3
Oldham sub-region	245·8	3·9	−2·7	−1·1	0·7	0·3	0·4	−3·8	−1·5	243·2	3·8
Bolton sub-region	236·3	3·7	−2·9	−1·2	0·9	0·4	0·4	−4·1	−1·7	233·5	3·6
Altrincham sub-region	142·0	2·2	8·4	5·9	1·5	1·1	0·2	6·6	4·7	150·4	2·3
Bury sub-region	144·2	2·3	−1·1	−0·8	−0·1	−0·1	0·2	−1·2	−0·8	143·1	2·2
Rochdale sub-region	119·0	1·9	−1·7	−1·4	0·1	0·1	0·2	−2·0	−1·7	117·3	1·8
Leigh sub-region	86·9	1·4	−1·6	−1·8	1·1	1·2	0·1	−2·7	−3·2	85·3	1·3
Stalybridge sub-region	64·8	1·0	−0·6	−0·9	−0·1	−0·1	0·1	−0·6	−1·0	64·2	1·0
High Peak sub-region	38·0	0·6	−0·6	−1·4	0·4	0·9	0·1	−1·0	−2·6	37·5	0·6
Merseyside	1,584·9	24·8	32·9	2·1	52·9	3·3	2·5	−22·4	−1·4	1,617·8	25·2
North Merseyside sub-region	1,207·8	18·9	22·1	1·8	43·4	3·6	1·9	−23·2	−1·9	1,229·9	19·1
South Merseyside sub-region	377·1	5·9	10·9	2·9	9·5	2·5	0·6	0·8	0·2	388·0	6·1
Warrington-Wigan area	595·4	9·3	5·3	0·9	14·3	2·4	0·9	−9·9	−1·7	600·7	9·3
Wigan sub-region	380·0	5·9	0·2	0·1	7·4	1·9	0·6	−7·8	−2·0	380·2	5·9
Warrington sub-region	215·4	3·4	5·1	2·4	6·9	3·2	0·3	−2·2	−1·0	220·5	3·4

North Lancashire .	1,238·4	19·4	−1·5	−0·1	−4·1	−0·3	2·0	0·6	—	1,236·9	19·2
Ribble	763·6	12·0	−5·2	−0·7	−0·5	−0·1	1·2	−5·8	−0·8	758·5	11·8
Blackburn sub-region	256·3	4·0	−2·7	−1·1	−2·1	−0·8	0·4	−1·0	−0·4	253·6	3·9
Preston sub-region .	203·7	3·2	3·3	1·6	2·8	1·4	0·3	0·2	0·1	206·9	3·2
Burnley sub-region .	179·3	2·8	−4·3	−2·4	−1·5	−0·8	0·3	−3·1	−1·7	175·0	2·7
Chorley sub-region .	66·4	1·0	−0·5	−0·8	0·5	0·8	0·1	−1·1	−1·7	65·9	1·0
Rossendale sub-region	57·9	0·9	−0·8	−1·4	−0·2	−0·4	0·1	−0·7	−1·2	57·1	0·9
Lancaster-Fylde .	368·8	5·8	5·0	1·4	−4·3	−1·2	0·6	8·7	2·4	373·9	5·8
Blackpool and Fylde sub-region . .	258·3	4·0	5·5	2·1	−3·9	−1·5	0·4	9·0	3·5	263·8	4·1
Lancaster sub-region.	110·5	1·7	−0·5	−0·5	−0·4	−0·4	0·2	−0·3	−0·3	110·0	1·7
Furness	106·0	1·7	−1·4	−1·3	0·8	0·7	0·2	−2·4	−2·2	104·6	1·6
South Cheshire . .	360·2	5·6	12·4	3·5	6·4	1·8	0·5	5·5	1·5	372·6	5·8
Crewe sub-region .	103·5	1·6	1·6	1·5	1·6	1·5	0·2	−0·2	−0·2	105·1	1·7
Chester sub-region .	92·7	1·4	4·5	4·9	2·2	2·3	0·1	2·2	2·4	97·2	1·5
Macclesfield sub-region . . .	89·2	1·4	2·2	2·5	0·2	0·2	0·1	1·9	2·1	91·4	1·4
Norwich sub-region	74·8	1·2	4·2	5·6	2·5	3·3	0·1	1·6	2·1	78·9	1·2

Table 13 **Civilian population changes**
North West Region 1956-61

(thousands)

Area	Distribution 1956		Changes 1956-61 Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration		Distribution 1961	
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*	*No.*	*No.*	*Per cent*	*No.*	*Per cent*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
North West Region	6,431·6	100·0	110·0	1·7	133·7	2·1	36·6	−60·3	−0·9	6,541·6	100·0
Mersey	4,822·1	75·0	70·8	1·5	127·2	2·6	27·5	−83·9	−1·7	4,892·9	74·8
South East Lancashire	2,603·6	40·5	18·1	0·7	45·9	1·8	14·8	−42·6	−1·6	2,621·7	40·1
Manchester sub-region	1,251·4	19·5	−19·3	−1·5	32·6	2·6	7·1	−59·1	−4·7	1,232·1	18·8
Stockport sub-region	277·8	4·3	27·0	9·7	5·0	1·8	1·6	20·5	7·4	304·8	4·7
Oldham sub-region	243·2	3·8	−5·8	−2·4	1·1	0·5	1·4	−8·3	−3·4	237·3	3·6
Bolton sub-region	233·5	3·6	−1·1	−0·5	1·6	0·7	1·3	−4·1	−1·7	232·3	3·5
Altrincham sub-region	150·4	2·4	21·9	14·6	3·5	2·3	0·9	17·6	11·7	172·3	2·6
Bury sub-region	143·1	2·2	1·9	1·3	0·4	0·2	0·8	0·7	0·5	144·9	2·2
Rochdale sub-region	117·3	1·8	−1·9	−1·6	0·1	0·1	0·7	−2·6	−2·3	115·5	1·8
Leigh sub-region	85·3	1·3	−3·0	−3·6	1·0	1·2	0·5	−4·5	−5·3	82·3	1·3
Stalybridge sub-region	64·2	1·0	−1·4	−2·2	0·1	0·2	0·4	−1·9	−3·0	62·8	1·0
High Peak sub-region	37·5	0·6	−0·1	−0·2	0·5	1·4	0·2	−0·8	−2·1	37·4	0·6
Merseyside	1,617·8	25·2	47·9	3·0	65·3	4·0	9·2	−26·7	−1·7	1,665·7	25·4
North Merseyside sub-region	1,229·9	19·1	27·6	2·2	53·9	4·4	7·0	−33·3	−2·7	1,257·5	19·2
South Merseyside sub-region	388·0	6·1	20·3	5·2	11·5	3·0	2·2	6·6	1·7	408·2	6·2
Warrington-Wigan area	600·7	9·3	4·8	0·8	16·0	2·7	3·4	−14·6	−2·4	605·5	9·3
Wigan sub-region	380·2	5·9	1·1	0·3	8·2	2·1	2·2	−9·3	−2·4	381·2	5·9
Warrington sub-region	220·5	3·4	3·7	1·7	7·8	3·5	1·3	−5·3	−2·4	224·2	3·4

North Lancashire	1,236·9	19·2	25·9	2·1	−0·8	−0·1	7·0	19·7	1·6	1,262·8	19·3
Ribble	758·5	11·8	1·1	0·1	2·3	0·3	4·3	−5·6	−0·7	759·5	11·6
Blackburn sub-region	253·6	4·0	−2·5	−1·0	−1·4	−0·6	1·4	−2·6	−1·0	251·1	3·8
Preston sub-region	206·9	3·2	8·1	3·9	4·4	2·1	1·2	2·5	1·2	215·0	3·3
Burnley sub-region	175·0	2·7	−3·8	−2·1	−1·2	−0·7	1·0	−3·6	−2·0	171·3	2·6
Chorley sub-region	65·9	1·0	0·9	1·3	0·7	1·1	0·4	−0·2	−0·4	66·7	1·0
Rossendale sub-region	57·1	0·9	−1·6	−2·9	−0·2	−0·4	0·3	−1·7	−3·1	55·4	0·9
Lancaster-Fylde	373·9	5·8	25·1	6·7	−3·7	−1·0	2·1	26·7	7·1	398·9	6·1
Blackpool and Fylde sub-region	263·8	4·1	21·0	8·0	−3·7	−1·4	1·5	23·2	8·8	284·8	4·4
Lancaster sub-region	110·0	1·7	4·1	3·7	—	—	0·6	3·4	3·1	114·1	1·7
Furness	104·6	1·6	−0·2	−0·2	0·6	0·6	0·6	−1·4	−1·3	104·4	1·6
South Cheshire	372·6	5·8	13·3	3·6	7·3	2·0	2·1	3·9	1·0	385·9	5·9
Crewe sub-region	105·1	1·7	3·6	3·4	1·9	1·8	0·6	1·1	1·0	108·6	1·7
Chester sub-region	97·2	1·5	4·1	4·2	2·7	2·7	0·6	0·9	0·9	101·3	1·5
Macclesfield sub-region	91·5	1·4	6·1	6·6	1·1	1·1	0·5	4·5	4·9	97·5	1·5
Northwich sub-region	78·9	1·2	−0·4	−0·5	1·7	2·2	0·5	−2·6	−3·2	78·5	1·2

Table 14 Civilian population changes
North West Region 1961-64

(thousands)

Area	Distribution 1961		Changes 1961-64							Distribution 1964	
			Total		By births and deaths		Estimated gain from armed forces	Estimated net balance by migration			
	No.	Per cent	No.	Per cent	No.	Per cent	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
North West Region	6,541·6	100·0	120·3	1·8	114·0	1·7	6·5	−0·2	—	6,661·9	100·0
Mersey	4,892·9	74·8	88·6	1·8	101·9	2·1	4·8	−18·1	−0·4	4,981·5	74·8
South East Lancashire	2,621·7	40·1	38·6	1·5	44·7	1·7	2·6	−8·7	−0·3	2,660·3	39·9
Manchester sub-region	1,232·1	18·8	−5·9	−0·5	25·9	2·1	1·2	−33·0	−2·7	1,226·2	18·4
Stockport sub-region	304·8	4·7	19·0	6·2	5·9	1·9	0·3	12·7	4·2	323·8	4·8
Oldham sub-region	237·3	3·6	0·1	—	2·1	0·9	0·2	−2·2	−0·9	237·5	3·6
Bolton sub-region	232·3	3·5	2·3	1·0	2·6	1·1	0·2	−0·6	−0·2	234·6	3·5
Altrincham sub-region	172·3	2·6	11·9	6·9	3·7	2·2	0·2	8·1	4·7	184·2	2·8
Bury sub-region	144·9	2·2	7·5	5·2	1·9	1·3	0·1	5·5	3·8	152·4	2·3
Rochdale sub-region	115·5	1·8	1·1	1·0	1·0	0·9	0·1	—	0·1	116·6	1·7
Leigh sub-region	82·3	1·3	1·2	1·4	1·0	1·2	0·1	0·1	0·1	83·4	1·2
Stalybridge sub-region	62·8	1·0	1·2	2·0	0·4	0·6	0·1	0·8	1·3	64·0	1·0
High Peak sub-region	37·4	0·6	0·2	0·4	0·2	0·6	—	−0·1	−0·3	37·6	0·6
Merseyside	1,665·7	25·4	31·1	1·9	44·5	2·7	1·7	−15·0	−0·9	1,696·8	25·5
North Merseyside sub-region	1,257·5	19·2	19·7	1·6	35·6	2·8	1·3	−17·2	−1·4	1,277·1	19·2
South Merseyside sub-region	408·2	6·2	11·5	2·8	8·9	2·2	0·4	2·2	0·5	419·7	6·3
Warrington-Wigan area	605·5	9·3	18·9	3·1	12·7	2·1	0·6	5·6	0·9	624·4	9·4
Wigan sub-region	381·2	5·9	9·2	2·4	6·5	1·7	0·4	2·3	0·6	390·5	5·9
Warrington sub-region	224·2	3·4	9·7	4·3	6·1	2·7	0·2	3·3	1·5	233·9	3·5

North Lancashire	1,262·8	19·3	16·2	1·3	6·2	0·5	1·3	8·7	0·7	1,279·0	19·2
Ribble	759·5	11·6	4·9	0·7	6·8	0·9	0·8	−2·7	−0·3	764·4	11·5
Blackburn sub-region	251·1	3·8	0·2	0·1	0·8	0·3	0·3	−0·9	−0·4	251·2	3·8
Preston sub-region	215·0	3·3	5·8	2·7	4·5	2·1	0·2	1·0	0·5	220·8	3·3
Burnley sub-region	171·3	2·6	−1·4	−0·8	0·4	0·2	0·2	−2·0	−1·2	169·8	2·6
Chorley sub-region	66·7	1·0	1·3	1·9	0·9	1·4	0·1	0·3	0·4	68·0	1·0
Rossendale sub-region	55·4	0·9	−0·8	−1·5	0·2	0·4	0·1	−1·1	−2·0	54·6	0·8
Lancaster-Fylde	398·9	6·1	11·0	2·8	−1·2	−0·3	0·4	11·8	3·0	409·9	6·1
Blackpool and Fylde sub-region	284·8	4·4	7·8	2·7	−1·4	−0·5	0·3	8·9	3·1	292·7	4·3
Lancaster sub-region	114·1	1·7	3·2	2·8	0·2	0·2	0·1	2·9	2·5	117·3	1·8
Furness	104·4	1·6	0·2	0·2	0·6	0·6	0·1	−0·5	−0·5	104·7	1·6
South Cheshire	385·9	5·9	15·5	4·0	5·9	1·5	0·4	9·2	2·4	401·4	6·0
Crewe sub-region	108·6	1·7	3·8	3·5	1·7	1·6	0·1	2·0	1·8	112·5	1·7
Chester sub-region	101·3	1·5	4·5	4·4	1·9	1·9	0·1	2·4	2·4	105·7	1·6
Macclesfield sub-region	97·5	1·5	4·5	4·6	1·2	1·3	0·1	3·1	3·2	102·0	1·5
Northwich sub-region	78·5	1·2	2·7	3·5	1·0	1·3	0·1	1·6	2·1	81·2	1·2

Table 15 **Civilian population: mean annual changes by migration**
North West Region 1951-56, 1956-61 and 1961-64

(thousands)

Area	1951-56		1956-61		1961-64	
	No.	Per cent	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)
North West Region	−12·0	−0·19	−12·1	−0·19	−0·1	—
Mersey	−13·2	−0·28	−16·8	−0·35	−6·0	−0·12
South East Lancashire	−6·8	−0·26	−8·5	−0·33	−2·9	−0·11
Manchester sub-region	−6·1	−0·49	−11·8	−0·95	−11·0	−0·90
Stockport sub-region	1·1	0·41	4·1	1·41	4·2	1·35
Oldham sub-region	−0·8	−0·31	−1·7	−0·69	−0·7	−0·31
Bolton sub-region	−0·8	−0·35	−0·8	−0·35	−0·2	−0·09
Altrincham sub-region	1·3	0·91	3·5	2·18	2·7	1·50
Bury sub-region	−0·2	−0·17	0·1	0·10	1·8	1·24
Rochdale sub-region	−0·4	−0·34	−0·5	−0·45	—	—
Leigh sub-region	−0·6	−0·64	−0·9	−1·08	—	0·04
Stalybridge sub-region	−0·1	−0·20	−0·4	−0·61	0·3	0·43
High Peak sub-region	−0·2	−0·51	−0·2	−0·42	—	−0·06
Merseyside	−4·5	−0·28	−5·3	−0·33	−5·0	−0·30
North Merseyside sub-region	−4·6	−0·38	−6·7	−0·54	−5·7	−0·45
South Merseyside sub-region	0·2	0·04	1·3	0·33	0·7	0·18
Warrington-Wigan area	−2·0	−0·33	−2·9	−0·48	1·9	0·31
Wigan sub-region	−1·6	−0·41	−1·9	−0·49	0·8	0·20
Warrington sub-region	−0·4	−0·20	−1·1	−0·48	1·1	0·49
North Lancashire	0·1	0·01	3·9	0·31	2·9	0·23
Ribble	−1·2	−0·15	−1·1	−0·15	−0·9	−0·12
Blackburn sub-region	−0·2	−0·08	−0·5	−0·20	−0·3	−0·12
Preston sub-region	—	0·02	0·5	0·24	0·3	0·16
Burnley sub-region	−0·6	−0·35	−0·7	−0·41	−0·7	−0·39
Chorley sub-region	−0·2	−0·34	—	−0·07	0·1	0·12
Rossendale sub-region	−0·1	−0·24	−0·3	−0·62	−0·4	−0·65
Lancaster-Fylde	1·7	0·47	5·3	1·38	3·9	0·97
Blackpool and Fylde sub-region	1·8	0·69	4·6	1·69	3·0	1·03
Lancaster sub-region	−0·1	−0·05	0·7	0·61	1·0	0·83
Furness	−0·5	−0·45	−0·3	−0·27	−0·2	−0·15
South Cheshire	1·1	0·30	0·8	0·21	3·1	0·78
Crewe sub-region	—	−0·03	0·2	0·21	0·7	0·61
Chester sub-region	0·4	0·47	0·2	0·18	0·8	0·78
Macclesfield sub-region	0·4	0·42	0·9	0·95	1·0	1·05
Northwich sub-region	0·3	0·41	−0·5	−0·65	0·5	0·68

Table 16 **The proportion of the population of Great Britain resident in the North West Region** *1801-1964*

Year	Population of North West Region			
	Enumerated		*Civilian*	
	No. (thousands)	*Percentage of the population of Great Britain*	*No. (thousands)*	*Percentage of the population of Great Britain*
(1)	(2)	(3)	(4)	(5)
1801	866	8·2	—	—
1811	1,056	8·8	—	—
1821	1,323	9·4	—	—
1831	1,671	10·3	—	—
1841	2,063	11·1	—	—
1851	2,487	11·9	—	—
1861	2,935	12·7	—	—
1871	3,381	13·0	—	—
1881	4,098	13·8	—	—
1891	4,657	14·1	—	—
	4,651	14·1	—	—
1901	5,215	14·1	—	—
1911	5,723	14·0	—	—
1921	5,954	13·9	—	—
1931	6,128	13·7	—	—
	6,197	13·8	—	—
1941	No census	No census	—	—
1951	6,447	13·2	6,380	13·2
1961	6,567	12·8	6,542	12·8
1964	—	—	6,662	12·7

NOTES:

1. The figures given in column 2 are the census enumerated populations. In column 4 the Registrar General's mid-year estimates for 1951, 1961 and 1964 are given for comparison; equivalent estimates are not available for earlier years.
2. The figures for years prior to 1931 do not cover the High Peak area of Derbyshire. Those for years prior to 1891 are for aggregates of Ancient Counties; subsequent ones relate to areas as constituted in 1964. Bridging figures are given for 1931 and 1891.

Table 17 **Population by place of birth**
North West Region and England and Wales 1951-61

Birthplace	Proportion per 10,000 population (1961 Census) enumerated in		Changes 1951-61	
	North West Region	*England and Wales*	*North West Region (thousands)*	*England and Wales (thousands)*
(1)	(2)	(3)	(4)	(5)
All areas	10,000	10,000	120	2,347
British Isles	9,782	9,621	137	1,992
England and Wales	9,453	9,283	113	1,681
Rest of British Isles	329	338	24	311
Scotland	117	142	4	73
Northern Ireland	50	41	6	53
Irish Republic	151	148	16	190
Isle of Man and Channel Islands	12	7	—2	—5
Other areas	218	379	—16	355
Commonwealth, colonies, etc.	62	143	15	340
Foreign countries and at sea	96	165	—9	114
Remainder	60	71	—22	—99

NOTES:

1. The figures for persons born in the British Isles include both residents and visitors; figures given for Overseas-born are of residents only.
2. The "remainder" includes all those for whom no birthplace was stated and visitors born outside the British Isles.
3. The figures for the Irish Republic include totals for "Ireland, parts not stated".

Table 18 **Distribution of total employed**

Great Britain 1953-63

(thousands)

Area	*Estimated numbers of employees (total—male and female) in employment*										
	1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Great Britain	20,601	20,955	21,285	21,511	21,599	21,443	21,488	21,937	22,250	22,476	22,484
Scotland	2,076	2,102	2,112	2,122	2,119	2,074	2,067	2,090	2,104	2,121	2,091
Northern Region	1,223	1,233	1,242	1,267	1,268	1,273	1,263	1,270	1,277	1,274	1,257
East and West Ridings Region	1,779	1,806	1,821	1,847	1,855	1,832	1,821	1,853	1,872	1,884	1,888
North Western Region	2,879	2,927	2,955	2,956	2,956	2,921	2,894	2,935	2,965	2,953	2,930
Wales	922	924	933	939	936	921	922	941	953	954	958
Midland Region	1,996	2,056	2,124	2,135	2,118	2,112	2,122	2,205	2,223	2,254	2,255
North Midland Region	1,419	1,435	1,458	1,478	1,490	1,482	1,482	1,521	1,555	1,568	1,575
South Western Region	1,126	1,147	1,165	1,174	1,181	1,174	1,196	1,219	1,253	1,271	1,287
South East England	7,182	7,325	7,475	7,591	7,674	7,653	7,720	7,902	8,047	8,198	8,243

Table 19 **Distribution of employed males**
Great Britain 1953-63

(thousands)

Area	Estimated numbers of male employees in employment										
	1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Great Britain	13,537	13,683	13,844	13,971	14,021	13,945	13,947	14,161	14,331	14,431	14,421
Scotland	1,363	1,374	1,376	1,380	1,378	1,353	1,336	1,342	1,347	1,350	1,326
Northern Region	871	876	879	894	892	894	882	879	877	870	849
East and West Ridings Region	1,179	1,187	1,193	1,205	1,206	1,199	1,192	1,208	1,215	1,222	1,227
North Western Region	1,800	1,818	1,836	1,841	1,841	1,825	1,807	1,826	1,845	1,841	1,833
Wales	676	671	672	673	672	661	657	666	673	666	667
Midland Region	1,313	1,338	1,378	1,385	1,379	1,379	1,388	1,434	1,440	1,457	1,459
North Midland Region	960	969	982	994	1,005	1,001	1,001	1,016	1,031	1,038	1,042
South Western Region	766	775	783	788	790	784	799	807	828	832	841
South East England	4,608	4,675	4,746	4,813	4,857	4,850	4,885	4,983	5,074	5,156	5,178

Table 20 Distribution of employed females
Great Britain 1953-63

(thousands)

Area	Estimated numbers of female employees in employment										
	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Great Britain	7,064	7,272	7,440	7,540	7,579	7,498	7,541	7,776	7,919	8,044	8,063
Scotland	713	728	735	743	741	722	730	748	758	771	765
Northern Region	352	357	363	373	376	379	381	391	400	404	408
East and West Ridings Region	600	619	628	643	649	633	629	645	657	661	661
North Western Region	1,079	1,109	1,119	1,116	1,115	1,097	1,087	1,109	1,120	1,112	1,097
Wales	246	253	260	266	264	260	265	275	280	288	291
Midland Region	683	718	747	750	740	733	734	771	784	797	796
North Midland Region	459	466	476	484	485	481	482	505	523	529	533
South Western Region	360	372	382	387	391	390	398	412	425	439	446
South East England	2,574	2,650	2,729	2,778	2,818	2,803	2,836	2,919	2,972	3,043	3,066

Table 21 **Employment changes by broad categories of industry**
Great Britain 1953-59 and 1959-63

(percentages)

Item		Changes in estimated numbers of employees in employment: All industries and services 1953-59	All industries and services 1959-63	Primary industries 1953-59	Primary industries 1959-63	Manufacturing industries 1953-59	Manufacturing industries 1959-63	Construction 1953-59	Construction 1959-63	Service industries (excluding Construction) 1953-59	Service industries (excluding Construction) 1959-63
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Great Britain	Total	4·3	4·6	− 8·9	−16·0	4·2	3·3	4·5	11·7	6·6	7·7
	Male	3·0	3·4	− 9·3	−17·2	6·2	4·1	3·3	11·2	3·2	5·8
	Female	6·7	6·9	− 3·6	− 2·1	0·1	1·8	36·8	23·3	11·2	9·9
Scotland	Total	− 0·4	1·2	− 5·5	−18·9	− 3·4	− 1·2	− 1·2	16·6	3·2	4·6
	Male	− 2·0	− 0·8	− 5·8	−19·8	− 1·9	− 2·1	− 2·8	16·9	− 0·3	2·3
	Female	2·5	4·8	− 1·2	− 9·4	− 6·5	0·6	33·8	12·2	7·1	7·1
Northern Region	Total	3·2	− 0·4	− 6·7	−20·3	6·8	− 1·9	2·6	6·8	4·7	7·1
	Male	1·2	− 3·7	− 7·2	−20·7	8·0	− 3·8	0·8	5·9	0·2	5·5
	Female	8·1	7·2	6·7	−10·0	3·4	3·9	70·0	28·1	9·9	8·8
East and West Ridings Region	Total	2·3	3·7	− 5·6	−13·3	0·4	2·2	4·7	18·3	6·8	7·4
	Male	1·1	2·9	− 5·8	−13·9	2·7	4·1	3·0	18·3	1·7	4·9
	Female	4·8	5·1	—	3·3	− 3·6	− 1·3	59·3	18·8	13·7	10·4
North Western Region	Total	0·5	1·2	−14·6	−20·4	− 1·9	− 2·1	1·2	11·8	4·7	4·9
	Male	0·4	1·4	−14·5	−21·5	2·0	0·8	− 0·1	11·4	0·5	2·6
	Female	0·8	0·9	−16·7	− 7·7	− 7·9	− 7·0	41·2	21·1	10·4	7·7
Wales	Total	—	3·9	−12·7	−16·5	0·2	9·2	− 6·0	12·2	6·0	6·3
	Male	− 2·7	1·5	−13·3	−16·9	1·2	7·9	− 7·1	11·8	2·1	4·0
	Female	7·5	10·0	5·2	− 8·2	− 2·5	13·1	50·0	25·0	11·6	9·3
Midland Region	Total	6·3	6·3	− 6·5	−17·6	5·0	4·7	14·7	17·9	9·6	10·5
	Male	5·6	5·1	− 7·8	−19·6	6·8	5·3	13·2	17·4	5·6	8·1
	Female	7·6	8·4	11·9	6·5	1·1	3·4	52·6	26·7	14·3	13·1

North Midland Region .	*Total*	4·5	6·3	− 6·1	−10·7	3·0	8·1	9·0	12·7	10·0	9·2
	Male	4·2	4·2	− 5·8	−11·9	6·0	8·4	8·1	12·2	7·5	5·8
	Female	5·0	10·7	− 9·3	5·1	− 2·4	7·6	37·0	24·3	13·2	13·5
South Western Region .	*Total*	6·3	7·6	−10·9	− 9·7	9·8	6·4	3·3	9·1	7·6	10·4
	Male	4·3	5·3	−12·6	−11·6	10·4	5·7	2·3	8·6	4·9	8·0
	Female	10·5	12·2	8·3	7·7	8·2	8·4	47·6	22·9	11·1	13·5
South East England .	*Total*	7·5	6·8	−13·4	−16·0	10·6	5·9	6·3	8·7	7·3	8·4
	Male	6·0	6·0	−14·3	−18·5	11·7	6·7	5·5	7·7	4·2	7·2
	Female	10·2	8·1	− 8·6	− 3·4	8·3	4·3	25·6	26·5	11·4	9·8

Table 22 **Total employment by Industrial Orders**

North Western Region and Great Britain 1953, 1959 and 1963

(thousands)

Industrial Order		Estimated numbers of employees (total—male and female) in employment							
		1953		1959		1959		1963	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All industries and services	2,878·7	20,601·2	2,894·3	21,487·6	2,894·3	21,487·6	2,929·6	22,484·4
	Primary industries	101·1	1,612·1	86·3	1,468·5	86·6	1,471·4	68·9	1,236·1
I	Agriculture, Forestry, Fishing	34·3	735·5	26·6	641·1	26·6	641·1	24·0	553·7
II	Mining and Quarrying	66·8	876·6	59·7	827·4	60·0	830·3	44·9	682·4
	Manufacturing industries	1,428·6	8,219·3	1,400·9	8,561·1	1,369·8	8,303·7	1,341·6	8,581·5
III	Food, Drink and Tobacco	121·8	805·2	138·1	857·4	124·4	780·5	126·2	804·9
IV	Chemicals and Allied Industries	114·3	486·5	126·7	538·5	129·2	515·3	122·3	511·2
V	Metal Manufacture	43·6	595·8	44·4	602·5	41·5	572·8	37·6	591·4
VI & IX	Engineering and Electrical Goods and Metal Goods	301·2	2,181·0	321·0	2,427·9	315·1	2,411·5	344·3	2,670·9
VII	Shipbuilding and Marine Engineering	42·1	285·3	40·5	268·2	39·9	266·4	30·6	211·2
VIII	Vehicles	99·3	820·8	103·7	906·4	101·7	859·8	114·6	865·9
X	Textiles	372·0	963·7	298·7	840·1	299·0	839·7	234·9	776·4
XI	Leather, Leather Goods and Fur	13·6	72·2	10·8	63·8	10·6	62·8	9·7	61·6
XII	Clothing and Footwear	119·5	626·8	105·7	578·3	99·4	546·0	99·1	542·8
XIII	Bricks, Pottery, Glass, Cement, etc.	42·7	332·9	45·7	324·0	44·7	323·0	46·0	337·0
XIV	Timber, Furniture, etc.	34·9	290·8	30·5	287·7	29·3	279·4	30·2	280·8
XV	Paper, Printing and Publishing	70·9	505·5	80·5	581·3	79·5	568·7	88·0	620·6
XVI	Other Manufacturing Industries	52·7	252·8	54·6	285·0	55·5	277·8	58·1	306·8
XVII	**Construction**	154·4	1,305·8	156·3	1,364·7	156·2	1,378·8	174·7	1,540·4

	Service industries (excluding Construction)	1,194·6	9,464·0	1,250·8	10,093·3	1,281·7	10,333·7	1,344·4	11,126·4
XVIII	Gas, Electricity and Water	50·7	372·6	49·6	374·2	47·9	374·3	48·5	397·1
XIX	Transport and Communication	249·0	1,684·2	242·6	1,628·2	243·4	1,625·2	229·4	1,605·7
XX	Distributive Trades	296·6	2,219·3	339·8	2,541·0	366·2	2,694·3	379·1	2,903·5
XXI	Insurance, Banking and Finance	50·6	443·5	58·4	527·4	55·6	527·4	62·4	602·5
XXII	Professional and Scientific Services	178·6	1,524·9	206·6	1,823·7	219·4	1,916·8	261·5	2,214·3
XXIII	Miscellaneous Services	225·2	1,897·9	216·5	1,893·8	217·8	1,955·1	220·0	2,064·2
XXIV	Public Administration and Defence	143·9	1,321·6	137·3	1,305·0	131·4	1,240·6	143·5	1,339·1

NOTE:
The estimates of numbers employed 1953 in columns 3 and 4 have been compiled from data for Minimum List Headings as defined in the 1948 Standard Industrial Classification. The 1959 estimates in columns 5 and 6 have been similarly compiled; they differ marginally from those given in columns 7 and 8, which are based on the 1958 Standard Industrial Classification.

Table 23 Male employment by Industrial Orders
North Western Region and Great Britain 1953, 1959 and 1963

Industrial Order		Estimated numbers of male employees in employment							
		1953		1959		1959		1963	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All industries and services	1,800·2	13,537·0	1,807·2	13,946·8	1,807·2	13,946·8	1,832·7	14,421·3
	Primary industries	93·3	1,491·3	79·8	1,352·0	80·1	1,355·0	62·9	1,122·2
I	Agriculture, Forestry, Fishing	29·5	634·6	22·7	548·8	22·7	548·8	20·0	461·9
II	Mining and Quarrying	63·8	856·7	57·1	803·2	57·4	806·2	42·9	660·3
	Manufacturing industries	866·0	5,445·1	883·0	5,784·1	867·5	5,610·8	874·4	5,840·6
III	Food, Drink and Tobacco	63·5	459·9	71·9	487·5	66·0	442·1	69·3	461·0
IV	Chemicals and Allied Industries	85·8	346·8	94·7	389·7	98·5	373·2	93·7	371·1
V	Metal Manufacture	37·2	515·4	37·9	520·3	35·3	502·6	32·3	518·7
VI & IX	Engineering and Electrical Goods and Metal Goods	228·3	1,586·8	243·0	1,765·8	237·0	1,734·3	256·6	1,916·3
VII	Shipbuilding and Marine Engineering	40·3	272·2	38·8	255·2	38·2	253·5	29·1	199·8
VIII	Vehicles	86·6	696·8	89·4	774·9	89·0	744·1	99·3	750·3
X	Textiles	152·5	402·7	130·5	372·6	129·9	372·7	109·6	362·5
XI	Leather, Leather Goods and Fur	8·8	43·2	6·7	37·0	6·4	36·4	5·8	35·5
XII	Clothing and Footwear	26·3	168·4	23·2	155·6	21·7	148·0	21·2	145·2
XIII	Bricks, Pottery, Glass, Cement, etc.	34·3	250·8	37·1	247·4	36·2	246·4	37·5	260·4
XIV	Timber, Furniture, etc.	25·5	232·2	23·1	226·2	22·4	221·6	23·1	225·3
XV	Paper, Printing and Publishing	44·6	322·7	51·8	378·3	51·2	368·2	57·9	407·7
XVI	Other Manufacturing Industries	32·3	147·2	34·9	173·6	35·7	167·7	39·0	186·8
XVII	**Construction**	149·3	1,259·1	149·1	1,300·8	149·1	1,313·9	166·1	1,460·4

	Service industries (excluding Construction)	691·6	5,341·5	695·3	5,509·9	710·5	5,667·1	729·3	5,998·1
XVIII	Gas, Electricity and Water	45·8	334·7	43·9	332·1	42·6	332·1	42·9	348·8
XIX	Transport and Communication	223·2	1,440·9	215·4	1,383·8	216·1	1,380·8	203·5	1,351·8
XX	Distributive Trades	149·5	1,113·5	161·0	1,232·2	171·7	1,307·8	172·6	1,374·2
XXI	Insurance, Banking and Finance	30·8	266·7	33·3	303·2	31·6	303·2	33·9	331·4
XXII	Professional and Scientific Services	61·8	537·1	69·6	629·8	69·2	648·8	83·2	749·2
XXIII	Miscellaneous Services	73·1	683·5	72·4	695·8	82·6	791·3	89·5	884·1
XXIV	Public Administration and Defence	107·4	965·1	99·7	933·0	96·7	903·1	103·7	958·6

NOTE:
The estimates of numbers employed 1953 in columns 3 and 4 have been compiled from data for Minimum List Headings as defined in the 1948 Standard Industrial Classification. The 1959 estimates in columns 5 and 6 have been similarly compiled; they differ marginally from those given in columns 7 and 8, which are based on the 1958 Standard Industrial Classification.

Table 24 **Female Employment by Industrial Orders**
North Western Region and Great Britain 1953, 1959 and 1963 (thousands)

Industrial Order		Estimated numbers of female employees in employment							
		1953		1959		1959		1963	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All industries and services	1,078·5	7,064·2	1,087·1	7,540·8	1,087·1	7,540·8	1,096·9	8,063·1
	Primary industries	7·8	120·8	6·5	116·5	6·5	116·4	6·0	113·9
I	Agriculture, Forestry, Fishing	4·8	100·9	3·9	92·3	3·9	92·3	4·0	91·8
II	Mining and Quarrying	3·0	19·9	2·6	24·2	2·6	24·1	2·0	22·1
	Manufacturing industries	562·6	2,774·2	517·9	2,777·0	502·3	2,692·9	467·2	2,740·9
III	Food, Drink and Tobacco	58·3	345·3	66·2	369·9	58·4	338·4	56·9	343·9
IV	Chemicals and Allied Industries	28·5	139·7	32·0	148·8	30·7	142·1	28·6	140·1
V	Metal Manufacture	6·4	80·4	6·5	82·2	6·2	70·2	5·3	72·7
VI & IX	Engineering and Electrical Goods and Metal Goods	72·9	594·2	78·0	662·1	78·1	677·2	87·7	754·6
VII	Shipbuilding and Marine Engineering	1·8	13·1	1·7	13·0	1·7	12·9	1·5	11·4
VIII	Vehicles	12·7	124·0	14·3	131·5	12·7	115·7	15·3	115·6
X	Textiles	219·5	561·0	168·2	467·5	169·1	467·0	125·3	413·9
XI	Leather, Leather Goods and Fur	4·8	29·0	4·1	26·8	4·2	26·4	3·9	26·1
XII	Clothing and Footwear	93·2	458·4	82·5	422·7	77·7	398·0	77·9	397·6
XIII	Bricks, Pottery, Glass, Cement, etc.	8·4	82·1	8·6	76·6	8·5	76·6	8·5	76·6
XIV	Timber, Furniture, etc.	9·4	58·6	7·4	61·5	6·9	57·8	7·1	55·5
XV	Paper, Printing and Publishing	26·3	182·8	28·7	203·0	28·3	200·5	30·1	212·9
XVI	Other Manufacturing Industries	20·4	105·6	19·7	111·4	19·8	110·1	19·1	120·0
XVII	**Construction**	5·1	46·7	7·2	63·9	7·1	64·9	8·6	80·0

	Service industries (excluding Construction)	503·0	4,122·5	555·5	4,583·4	571·2	4,666·6	615·1	5,128·3
XVIII	Gas, Electricity and Water	4·9	37·9	5·7	42·1	5·3	42·2	5·6	48·3
XIX	Transport and Communication	25·8	243·3	27·2	244·4	27·3	244·4	25·9	253·9
XX	Distributive Trades	147·1	1,105·8	178·8	1,308·8	194·5	1,386·5	206·5	1,529·3
XXI	Insurance, Banking and Finance	19·8	176·8	25·1	224·2	24·0	224·2	28·5	271·1
XXII	Professional and Scientific Services	116·8	987·8	137·0	1,193·9	150·2	1,268·0	178·3	1,465·1
XXIII	Miscellaneous Services	152·1	1,214·4	144·1	1,198·0	135·2	1,163·8	130·5	1,180·1
XXIV	Puhlic Administration and Defence	36·5	356·5	37·6	372·0	34·7	337·5	39·8	380·5

NOTE:
The estimates of numhers employed 1953 in columns 3 and 4 have been compiled from data for Minimum List Headings as defined in the 1948 Standard Industrial Classification. The 1959 estimates in columns 5 and 6 have heen similarly compiled; they differ marginally from those given in columns 7 and 8 which are based on the 1958 Standard Industrial Classification.

Table 25 **Total employment changes by Industrial Orders**
North Western Region and Great Britain 1953-59-63

(percentages)

Industrial Order		Changes in estimated numbers of employees (total—male and female) in employment					
		1953-63		1953-59		1959-63	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	1·8	9·1	0·5	4·3	1·2	4·6
	Primary industries	−32·1	−23·5	−14·6	−8·9	−20·4	−16·0
1	Agriculture, Forestry, Fishing	−30·0	−24·7	−22·4	−12·8	−9·8	−13·6
II	Mining and Quarrying	−33·1	−22·4	−10·6	− 5·6	−25·2	−17·8
	Manufacturing industries	−4·0	7·6	−1·9	4·2	−2·1	3·3
III	Food, Drink and Tobacco	15·0	9·8	13·4	6·5	1·4	3·1
IV	Chemicals and Allied Industries	4·9	9·8	10·8	10·7	−5·3	−0·8
V	Metal Manufacture	−7·7	4·4	1·8	1·1	−9·4	3·2
VI & IX	Engineering and Electrical Goods and Metal Goods	16·4	23·3	6·6	11·3	9·3	10·8
VII	Shipbuilding and Marine Engineering	−26·2	−25·5	−3·8	−6·0	−23·3	−20·7
VIII	Vehicles	17·7	11·2	4·4	10·4	12·7	0·7
X	Textiles	−36·9	−19·4	−19·7	−12·8	−21·4	−7·5
XI	Leather, Leather Goods and Fur	−27·3	−13·3	−20·6	−11·6	−8·5	−1·9
XII	Clothing and Footwear	−11·8	−8·3	−11·5	−7·7	−0·3	−0·6
XIII	Bricks, Pottery, Glass, Cement, etc.	10·1	1·5	7·0	−2·7	2·9	4·3
XIV	Timber, Furniture, etc.	−9·9	−0·6	−12·6	−1·1	3·1	0·5
XV	Paper, Printing and Publishing	25·7	25·5	13·5	15·0	10·7	9·1
XVI	Other Manufacturing Industries	8·5	24·5	3·6	12·7	4·7	10·4
XVII	**Construction**	13·2	16·8	1·2	4·5	11·8	11·7

	Service industries (excluding Construction)	9·8	14·8	4·7	6·6	4·9	7·7
XVIII	Gas, Electricity and Water	−0·9	6·5	−2·2	0·4	1·3	6·1
XIX	Transport and Communication	−8·2	−4·5	−2·6	−3·3	−5·8	−1·2
XX	Distributive Trades	18·6	23·4	14·6	14·5	3·5	7·8
XXI	Insurance, Banking and Finance	29·5	35·9	15·4	18·9	12·2	14·2
XXII	Professional and Scientific Services	37·9	38·2	15·7	19·6	19·2	15·5
XXIII	Miscellaneous Services	−2·9	5·4	−3·9	−0·2	1·0	5·6
XXIV	Public Administration and Defence	5·0	6·6	−4·6	−1·3	9·2	7·9

Table 26 Male employment changes by Industrial Orders

North Western Region and Great Britain 1953-59-63

(percentages)

Industrial Order		Changes in estimated numbers of male employees in employment					
		1953-63		1953-59		1959-63	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	1·8	6·5	0·4	3·0	1·4	3·4
	Primary industries	−32·8	−24·9	−14·5	−9·3	−21·5	−17·2
I	Agriculture, Forestry, Fishing	−32·2	−27·2	−23·1	−13·5	−11·9	−15·8
II	Mining and Quarrying	−33·1	−23·2	−10·5	−6·2	−25·3	−18·1
	Manufacturing industries	2·8	10·6	2·0	6·2	0·8	4·1
III	Food, Drink and Tobacco	18·9	10·5	13·2	6·0	5·0	4·3
IV	Chemicals and Allied Industries	5·0	11·7	10·4	12·4	−4·9	−0·6
V	Metal Manufacture	−6·8	4·2	1·9	1·0	−8·5	3·2
VI & IX	Engineering and Electrical Goods and Metal Goods	15·2	23·0	6·4	11·3	8·3	10·5
VII	Shipbuilding and Marine Engineering	−26·7	−26·1	−3·7	−6·2	−23·8	−21·2
VIII	Vehicles	15·2	12·1	3·2	11·2	11·6	0·8
X	Textiles	−27·8	−10·0	−14·4	−7·5	−15·6	−2·7
XI	Leather, Leather Goods and Fur	−31·0	−16·5	−23·9	−14·4	−9·4	−2·5
XII	Clothing and Footwear	−13·8	−9·3	−11·8	−7·6	−2·3	−1·9
XIII	Bricks, Pottery, Glass, Cement, etc.	12·0	4·2	8·2	−1·4	3·6	5·7
XIV	Timber, Furniture, etc.	−6·6	−1·0	−9·4	−2·6	3·1	1·7
XV	Paper, Printing and Publishing	31·3	29·8	16·1	17·2	13·1	10·7
XVI	Other Manufacturing Industries	18·0	31·4	8·0	17·9	9·2	11·4
XVII	**Construction**	11·3	14·8	−0·1	3·3	11·4	11·2

	Service industries (excluding Construction)	3·2	9·2	0·5	3·2	2·6	5·8
XVIII	Gas, Electricity and Water	−3·5	4·2	−4·1	−0·8	0·7	5·0
XIX	Transport and Communication	−9·1	−6·0	−3·5	−4·0	−5·8	−2·1
XX	Distributive Trades	8·3	16·3	7·7	10·7	0·5	5·1
XXI	Insurance, Banking and Finance	16·0	24·3	8·1	13·7	7·3	9·3
XXII	Professional and Scientific Services	35·4	35·4	12·6	17·3	20·2	15·5
XXIII	Miscellaneous Services	7·3	13·7	−1·0	1·8	8·4	11·7
XXIV	Public Administration and Defence	−0·4	2·6	−7·2	−3·3	7·2	6·1

Table 27 Female employment changes by Industrial Orders
North Western Region and Great Britain 1953-59-63

(percentages)

Industrial Orders		Changes in estimated numbers of female employees in employment					
		1953-63		1953-59		1959-63	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	1·7	14·1	0·8	6·7	0·9	6·9
	Primary industries	−23·1	−5·6	−16·7	−3·6	−7·7	−2·1
I	Agriculture, Forestry, Fishing	−16·7	−9·0	−18·8	−8·5	2·6	−0·5
II	Mining and Quarrying	−33·3	11·5	−13·3	21·6	−23·1	−8·3
	Manufacturing industries	−14·4	1·9	−7·9	0·1	−7·0	1·8
III	Food, Drink and Tobacco	10·6	8·9	13·6	7·1	−2·6	1·6
IV	Chemicals and Allied Industries	4·6	5·0	12·3	6·5	−6·8	−1·4
V	Metal Manufacture	−13·2	5·9	1·6	2·2	−14·5	3·6
VI & IX	Engineering and Electrical Goods and Metal Goods	20·1	24·2	7·0	11·4	12·3	11·4
VII	Shipbuilding and Marine Engineering	−16·7	−12·3	−5·6	−0·8	−11·8	−11·6
VIII	Vehicles	35·7	6·0	12·6	6·0	20·5	−0·1
X	Textiles	−43·2	−26·1	−23·4	−16·7	−25·9	−11·4
XI	Leather, Leather Goods and Fur	−20·7	−8·6	−14·6	−7·6	−7·1	−1·1
XII	Clothing and Footwear	−11·3	−7·9	−11·5	−7·8	0·3	−0·1
XIII	Bricks, Pottery, Glass, Cement, etc.	2·4	−6·7	2·4	−6·7	—	—
XIV	Timber, Furniture, etc.	−19·0	0·8	−21·3	4·9	2·9	−4·0
XV	Paper, Printing and Publishing	16·1	17·9	9·1	11·1	6·4	6·2
XVI	Other Manufacturing Industries	−6·8	15·0	−3·4	5·5	−3·5	9·0
XVII	**Construction**	71·0	68·7	41·2	36·8	21·1	23·3

	Service industries (excluding Construction)	18·9	22·2	10·4	11·2	7·7	9·9
XVIII	Gas, Electricity and Water	22·9	27·1	16·3	11·1	5·7	14·5
XIX	Transport and Communication	—	4·4	5·4	0·5	−5·1	3·9
XX	Distributive Trades	29·0	30·5	21·5	18·4	6·2	10·3
XXI	Insurance, Banking and Finance	50·5	53·3	26·8	26·8	18·8	20·9
XXII	Professional and Scientific Services	39·2	40·0	17·3	20·9	18·7	15·5
XXIII	Miscellaneous Services	−8·6	—	−5·3	−1·4	−3·5	1·4
XXIV	Public Administration and Defence	18·2	17·6	3·0	4·3	14·7	12·7

Table 28 **Mean annual total employment changes by Industrial Orders**
North Western Region and Great Britain 1953-59-63

(percentages)

Industrial Order		Mean annual compound rates of change in estimated numbers of employees (total—male and female) in employment					
		1953-63		1953-59		1959-63	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	0·2	0·9	0·1	0·7	0·3	1·1
	Primary industries	−3·8	−2·6	−2·6	−1·5	−5·5	−4·3
I	Agriculture, Forestry, Fishing	−3·5	−2·8	−4·1	−2·3	−2·5	−3·6
II	Mining and Quarrying	−3·9	−2·5	−1·9	−1·0	−6·9	−4·8
	Manufacturing industries	−0·4	0·7	−0·3	0·7	−0·5	0·8
III	Food, Drink and Tobacco	1·4	0·9	2·1	1·1	0·3	0·8
IV	Chemicals and Allied Industries	0·5	0·9	1·7	1·7	−1·4	−0·2
V	Metal Manufacture	−0·8	0·4	0·3	0·2	−2·4	0·8
VI & IX	Engineering and Electrical Goods and Metal Goods	1·5	2·1	1·1	1·8	2·3	2·6
VII	Shipbuilding and Marine Engineering	−3·0	−2·9	−0·6	−1·0	−6·4	−5·6
VIII	Vehicles	1·6	1·1	0·7	1·7	3·0	0·2
X	Textiles	−4·5	−2·1	−3·6	−2·3	−5·8	−1·9
XI	Leather, Leather Goods and Fur	−3·1	−1·4	−3·8	−2·0	−2·2	−0·5
XII	Clothing and Footwear	−1·2	−0·9	−2·0	−1·3	−0·1	−0·2
XIII	Bricks, Pottery, Glass, Cement, etc.	1·0	0·1	1·1	−0·5	0·7	1·1
XIV	Timber, Furniture, etc.	−1·0	−0·1	−2·2	−0·2	0·8	0·1
XV	Paper, Printing and Publishing	2·3	2·3	2·1	2·4	2·6	2·2
XVI	Other Manufacturing Industries	0·8	2·2	0·6	2·0	1·2	2·5
XVII	**Construction**	1·2	1·6	0·2	0·7	2·8	2·8

	Service industries (excluding Construction)	0·9	1·4	0·8	1·1	1·2	1·9
XVIII	Gas, Electricity and Water	−0·1	0·6	−0·4	0·1	0·3	1·5
XIX	Transport and Communication	−0·9	−0·5	−0·4	−0·6	−1·5	−0·3
XX	Distributive Trades	1·7	2·1	2·3	2·3	0·9	1·9
XXI	Insurance, Banking and Finance	2·6	3·1	2·4	2·9	2·9	3·4
XXII	Professional and Scientific Services	3·3	3·3	2·5	3·0	4·5	3·7
XXIII	Miscellaneous Services	−0·3	0·5	−0·7	0	0·3	1·4
XXIV	Public Administration and Defence	0·5	0·6	−0·8	−0·2	2·2	1·9

NOTE:
Mean annual rates of change are not given in the table for Industrial Orders in which the estimated numbers employed in the North Western Region are less than 10,000.

Table 29 **Mean annual male employment changes by Industrial Orders**
North Western Region and Great Britain 1953-59-63

(percentages)

Industrial Order		Mean annual compound rates of change in estimated numbers of male employees in employment					
		1953-63		1953-59		1959-63	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	0·2	0·6	0·1	0·5	0·3	0·8
	Primary industries	−3·9	−2·8	−2·6	−1·6	−5·9	−4·6
I	Agriculture, Forestry, Fishing	−3·8	−3·1	−4·3	−2·4	−3·1	−4·2
II	Mining and Quarrying	−3·9	−2·6	−1·8	−1·1	−7·0	−4·9
	Manufacturing industries	0·3	1·0	0·3	1·0	0·2	1·0
III	Food, Drink and Tobacco	1·7	1·0	2·1	1·0	1·2	1·1
IV	Chemicals and Allied Industries	0·5	1·1	1·7	2·0	−1·2	−0·2
V	Metal Manufacture	−0·7	0·4	0·3	0·2	−2·2	0·8
VI & IX	Engineering and Electrical Goods and Metal Goods	1·4	2·1	1·0	1·8	2·0	2·5
VII	Shipbuilding and Marine Engineering	−3·1	−3·0	−0·6	−1·1	−6·5	−5·8
VIII	Vehicles	1·4	1·1	0·5	1·8	2·8	0·2
X	Textiles	−3·2	−1·0	−2·6	−1·3	−4·2	−0·7
XI	Leather, Leather Goods and Fur	−3·6	−1·8	−4·4	−2·6	−2·4	−0·6
XII	Clothing and Footwear	−1·5	−1·0	−2·1	−1·3	−0·6	−0·5
XIII	Bricks, Pottery, Glass, Cement, etc.	1·1	0·4	1·3	−0·2	0·9	1·4
XIV	Timber, Furniture, etc.	−0·7	−0·1	−1·6	−0·4	0·8	0·4
XV	Paper, Printing and Publishing	2·8	2·6	2·5	2·7	3·1	2·6
XVI	Other Manufacturing Industries	1·7	2·8	1·3	2·8	2·2	2·7
XVII	**Construction**	1·1	1·4	0	0·5	2·7	2·7

	Service industries (excluding Construction)	0·3	0·9	0·1	0·5	0·6	1·4
XVIII	Gas, Electricity and Water	−0·4	0·4	−0·7	−0·1	0·2	1·2
XIX	Transport and Communication	−1·0	−0·6	−0·6	−0·7	−1·5	−0·5
XX	Distributive Trades	0·8	1·5	1·2	1·7	0·1	1·3
XXI	Insurance, Banking and Finance	1·5	2·2	1·3	2·2	1·8	2·2
XXII	Professional and Scientific Services	3·1	3·1	2·0	2·7	4·7	3·7
XXIII	Miscellaneous Services	0·7	1·3	−0·2	0·3	2·0	2·8
XXIV	Public Administration and Defence	0	0·3	−1·2	−0·6	1·8	1·5

NOTE:
Mean annual rates of change are not given in the table for Industrial Orders in which the estimated numbers employed in the North Western Region are less than 10,000.

Table 30 Mean annual female employment changes by Industrial Orders
North Western Region and Great Britain 1953-59-63

(percentages)

Industrial Order		Mean annual compound rates of change in estimated numbers of female employees in employment					
		1953-63		1953-59		1959-63	
No.	Title	North Western Region	Great Britain	North Western Region	Great Britain	North Western Region	Great Britain
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All industries and services	0·2	1·3	0·1	1·1	0·2	1·7
	Primary industries	−2·6	−0·6	−3·0	−0·6	−2·0	−0·5
I	Agriculture, Forestry, Fishing	−1·8	−0·9	−3·4	−1·5	0·6	−0·1
II	Mining and Quarrying	−4·0	1·1	−2·4	3·3	−6·4	−2·1
	Manufacturing industries	−1·5	0·2	−1·4	0	−1·8	0·4
III	Food, Drink and Tobacco	1·0	0·9	2·1	1·1	−0·7	0·4
IV	Chemicals and Allied Industries	0·5	0·5	2·0	1·1	−1·7	−0·4
V	Metal Manufacture	−1·4	0·6	0·3	0·4	−3·8	0·9
VI & IX	Engineering and Electrical Goods and Metal Goods	1·8	2·2	1·1	1·8	2·9	2·7
VII	Shipbuilding and Marine Engineering	−1·8	−1·3	−1·0	−0·1	−3·1	−3·0
VIII	Vehicles	3·1	0·6	2·0	1·0	4·8	0
X	Textiles	−5·5	−3·0	−4·3	−3·0	−7·2	−3·0
XI	Leather, Leather Goods and Fur	−2·3	−0·9	−2·6	−1·3	−1·8	−0·3
XII	Clothing and Footwear	−1·2	−0·8	−2·0	−1·2	0·1	0
XIII	Bricks, Pottery, Glass, Cement, etc.	0·2	−0·7	0·4	−1·1	0	0
XIV	Timber, Furniture, etc.	−2·1	0·1	−3·9	0·8	0·7	−1·0
XV	Paper, Printing and Publishing	1·5	1·7	1·5	1 8	1·6	1·5
XVI	Other Manufacturing Industries	−0·7	1·4	−0·6	0·9	−0·9	2·2
XVII	**Construction**	5·5	5·4	5·9	5·4	4 9	5·4

	Service industries (excluding Construction)	1·8	2·0	1·7	1·8	1·9	2·4
XVIII	Gas, Electricity and Water	2·1	2·4	2·5	1·8	1·4	3·4
XIX	Transport and Communication	0	0·4	0·9	0·1	−1·3	1·0
XX	Distributive Trades	2·6	2·7	3·3	2·9	1·5	2·5
XXI	Insurance, Banking and Finance	4·2	4·4	4·0	4·0	4·4	4·9
XXII	Professional and Scientific Services	3·4	3·4	2·7	3·2	4·4	3·7
XXIII	Miscellaneous Services	−0·9	0	−0·9	−0·2	−0·9	0·3
XXIV	Public Administration and Defence	1·7	1·6	0·5	0·7	3·5	3·0

NOTE:

Mean annual rates of change are not given in the table for Industrial Orders in which the estimated numbers employed in the North-Western Region are less than 10,000.

Table 31 **Activity rates: total (males and females)**
Great Britain 1953-63

Areo	*Estimated numbers of employees (total—mole and femole), employed and unemployed, as percentoge of the home population oged 15 ond over*										
	1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*
Great Britain	54·8	55·5	56·1	56·6	56·8	56·5	56·3	56·7	57·0	57·0	56·9
Scotland	55·3	55·8	55·8	56·1	56·2	55·5	55·4	55·6	56·0	56·4	56·1
Northern Region	52·3	52·5	52·5	53·3	53·3	53·8	53·4	53·2	53·2	52·7	52·6
East and West Ridings Region	56·9	57·4	57·8	58·6	58·9	58·4	57·8	58·2	58·7	58·5	58·8
North Western Region	58·8	59·5	59·9	59·9	60·1	59·8	59·2	59·4	59·6	59·1	59·0
Wales	47·2	47·1	47·3	47·6	47·6	47·3	47·1	47·5	48·0	48·0	48·0
North Midland Region	54·3	54·7	55·2	55·9	56·0	55·7	55·2	55·8	56·0	55·8	55·7
Midland Region	59·1	60·4	62·1	62·1	61·5	61·1	60·7	62·0	61·3	61·3	60·9
South Western Region	45·2	46·0	46·5	47·0	47·4	46·6	47·1	47·3	47·8	47·9	48·1
South East England	55·1	55·9	56·6	57·3	57·8	57·8	57·7	58·4	58·9	59·1	58·9

NOTE:
In this table, Dorset (excluding Poole) is included in South East England for the years prior to 1958.

Table 32 **Activity rates: males**
Great Britain 1953-63

Area	*Age group*	*Estimated numbers of male employees, employed and unemployed, as percentage of the home population in the same age groups*										
		1953	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
(*1*)	(*2*)	(*3*)	(*4*)	(*5*)	(*6*)	(*7*)	(*8*)	(*9*)	(*10*)	(*11*)	(*12*)	(*13*)
Great Britain	*15 and over*	76·4	76·9	77·3	77·8	78·0	77·9	77·4	77·5	77·5	77·0	76·9
	65 and over	24·2	24·1	25·3	26·1	26·1	24·7	21·5	21·6	21·1	20·0	19·4
Scotland	*15 and over*	77·7	78·1	77·8	77·9	78·2	77·4	76·5	76·1	76·6	76·7	76·3
	65 and over	26·6	28·0	26·6	27·9	27·8	26·5	23·4	22·3	21·0	20·2	18·7
Northern Region . . .	*15 and over*	76·5	76·9	76·6	77·5	77·3	77·8	77·0	75·9	75·0	73·8	73·3
	65 and over	17·7	18·4	18·3	18·3	16·7	16·8	15·2	15·2	15·1	14·2	11·6
East and West Ridings Region .	*15 and over*	79·9	80·2	80·3	81·0	81·1	81·0	80·2	80·3	80·2	79·6	80·3
	65 and over	24·8	23·7	23·9	24·9	24·7	22·7	18·8	18·6	19·8	18·0	18·1
North Western Region . .	*15 and over*	79·8	79·9	80·3	80·5	80·7	80·7	79·8	79·6	79·7	78·9	79·2
	65 and over	22·4	22·9	24·3	25·6	25·4	23·7	19·8	19·6	20·7	19·4	18·9
Wales	*15 and over*	71·2	70·8	70·4	70·4	70·6	70·2	69·4	69·4	69·6	68·7	68·9
	65 and over	19·3	17·6	18·9	18·7	19·4	17·8	15·5	15·4	15·5	13·1	12·9
North Midland Region . .	*15 and over*	75·9	76·3	76·8	77·7	78·0	77·5	76·7	76·7	76·0	75·5	75·3
	65 and over	24·2	23·9	25·6	26·5	26·2	24·4	20·6	19·8	20·0	18·6	18·5
Midland Region . . .	*15 and over*	80·3	81·5	83·4	83·4	82·8	82·5	82·1	83·2	81·6	81·1	80·8
	65 and over	31·5	30·6	33·2	33·3	31·2	29·0	24·6	24·9	23·7	23·4	23·7
South Western Region . .	*15 and over*	64·6	65·2	65·6	66·3	66·7	65·7	66·5	66·2	66·6	65·9	65·9
	65 and over	17·4	17·3	19·1	19·7	20·1	18·5	15·9	17·4	17·7	15·8	14·9
South East England . . .	*15 and over*	76·0	76·7	77·1	77·9	78·3	78·5	78·4	78·9	79·3	79·1	78·6
	65 and over	25·6	25·6	27·2	28·1	28·9	27·8	24·9	25·4	23·7	22·9	22·7

NOTE:
In this table, Dorset (excluding Poole) is included in South-East England for the years prior to 1958.

Table 33 **Activity rates: females**
Great Britain 1953-63

Area	Age group	Estimated numbers of female employees, employed and unemployed, as percentage of the home population in the same age groups										
		1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Great Britain	15 and over	35·6	36·4	37·1	37·6	37·7	37·3	37·3	38·1	38·5	38·8	38·8
	60 and over	7·2	7·3	7·8	8·5	8·8	8·9	8·9	9·1	9·2	9·3	9·6
Scotland	15 and over	35·7	36·3	36·5	37·0	36·9	36·2	36·6	37·3	37·8	38·2	38·3
	60 and over	7·0	7·1	7·7	8·3	8·6	8·5	8·6	9·1	9·0	9·1	8·9
Northern Region	15 and over	29·4	29·6	29·9	30·5	30·7	31·1	31·1	31·7	32·4	32·5	32·9
	60 and over	4·6	4·9	5·2	5·1	6·1	5·7	5·6	5·8	6·5	6·4	6·5
East and West Ridings Region	15 and over	36·3	37·1	37·7	38·6	39·0	38·1	37·8	38·3	39·3	39·2	39·1
	60 and over	6·4	7·1	7·5	7·9	8·8	9·4	9·4	9·4	9·4	9·0	9·0
North Western Region	15 and over	40·8	41·9	42·2	42·1	42·1	41·6	41·3	41·8	42·0	41·6	41·2
	60 and over	8·1	8·6	8·9	9·7	9·9	9·8	9·7	9·7	9·9	9·3	9·6
Wales	15 and over	24·6	25·0	25·6	26·2	26·0	25·9	26·2	27·0	27·5	28·2	28·2
	60 and over	3·5	3·5	3·8	4·6	4·1	4·9	4·8	4·3	4·3	5·1	4·8
North Midland Region	15 and over	34·1	34·4	35·0	35·4	35·4	35·1	34·8	36·0	36·8	36·9	36·8
	60 and over	6·6	6·9	7·7	8·2	8·3	8·5	7·8	8·5	8·6	9·0	8·9
Midland Region	15 and over	39·2	40·8	42·2	42·3	41·5	40·6	40·7	42·1	42·0	42·3	41·9
	60 and over	9·1	8·3	9·4	10·3	11·1	10·9	10·5	10·7	10·2	10·9	11·7
South Western Region	15 and over	27·6	28·5	29·2	29·5	29·9	29·4	29·6	30·3	30·9	31·4	31·8
	60 and over	4·9	5·5	5·4	5·3	5·5	5·0	6·1	6·2	6·1	6·5	6·9
South East England	15 and over	36·9	37·8	38·7	39·3	39·7	39·5	39·6	40·3	40·9	41·3	41·3
	60 and over	8·1	8·0	8·6	9·5	9·8	10·1	10·0	10·3	10·6	10·6	11·2

NOTE:
In this table, Dorset (excluding Poole) is included in South-East England for the years prior to 1958.

Table 34 **Unemployment rates**
North Western Region and Great Britain 1953-63

Year	*Unemployment percentages: annual averages*						*Unemployment percentages for the North-Western Region as ratios of the Great Britain percentages*		
	Total		*Males*		*Females*				
	North Western Region	*Great Britain*	*North Western Region*	*Great Britain*	*North Western Region*	*Great Britain*	*Total*	*Males*	*Females*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1953	2·1	1·6	2·0	1·6	2·2	1·7	1·3	1·3	1·3
1954	1·5	1·3	1·5	1·3	1·4	1·4	1·1	1·2	1·0
1955	1·4	1.1	1·2	1·1	1·6	1·1	1·3	1·2	1·4
1956	1·3	1·2	1·3	1·2	1·4	1·2	1·1	1·1	1·2
1957	1·6	1·4	1·7	1·5	1·4	1·3	1·1	1·1	1·1
1958	2·7	2·1	2·8	2·3	2·6	1·8	1·3	1·2	1·5
1959	2·8	2·2	3·0	2·4	2·4	1·7	1·3	1·2	1·4
1960	1·9	1·6	2·2	1·8	1·6	1·3	1·2	1·2	1·2
1961	1·6	1·5	1·9	1·7	1·2	1·1	1·1	1·1	1·1
1962	2·6	2·0	2·9	2·4	2·0	1·5	1·3	1·2	1·4
1963	3·1	2·5	3·6	3·0	2·2	1·6	1·2	1·2	1·4

NOTE:
The unemployment rates given in columns 2-7 are the annual averages of the monthly figures of total registered unemployed (including temporarily stopped) expressed as a percentage of the estimated numbers of employees (employed and unemployed) at mid-year.

Table 35 **Inter-regional migration of employees**
North Western Region and the rest of Great Britain 1953-63

(thousands)

Origin/Destination of migrants	Average number of migrant employees per annum: To the North Western Region: Total			From the North Western Region: Total		
	Total	Males	Females	Total	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)
All areas of Great Britain outside the North-Western Region	64·1	44·1	20·0	66·9	46·0	20·9
Scotland	5·3	3·8	1·5	3·8	2·6	1·2
Northern Region	5·3	3·8	1·5	4·3	3·0	1·3
East and West Ridings Region . .	9·3	6·0	3·3	9·5	6·5	3·0
Wales	5·8	3·9	1·9	5·4	3·7	1·7
North Midland Region . . .	4·3	3·0	1·3	4·9	3·6	1·3
Midland Region	8·3	5·7	2·6	8·0	5·5	2·5
South Western Region . . .	3·5	2·5	1·0	3·2	2·2	0·9
South East England	22·5	15·3	7·2	28·1	18·9	9·2

Table 36 **Inter-regional migration of employees**
Great Britain 1953-63 (thousands)

Area	*Males*			*Females*			*Total gain* (+) *or loss* (−) *as percentage of estimated average numbers of employees 1953-63*
	In	*Out*	*Net gain* (+) *or loss* (−) *by migration*	*In*	*Out*	*Net gain* (+) *or loss* (−) *by migration*	
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
Scotland	183	262	−79	85	119	−34	−5·2
Northern Region . .	213	266	−53	84	108	−24	−6·0
East and West Ridings Region	327	340	−13	140	161	−21	−1·8
North Western . . .	441	460	−19	200	209	−9	−0·9
Wales	195	220	−25	75	92	−17	−4·4
North Midland Region .	335	328	+7	135	143	−8	−0·1
Midland Region . . .	396	402	−6	160	173	−13	−0·9
South Western Region .	295	295	0	145	138	+7	+0·6
South East England . .	1,044	856	+188	522	403	+119	+3·9

Table 39 **Age and condition of dwellings**
North West Region

Area	Estimated number of dwellings which will be ripe for demolition 1964-81		Census enumerated dwellings					Census enumerated dwellings with no fixed bath 1961		Dwellings with rateable value not exceeding £30 April 1963	
			1861		1881		1961				
	Slum clearance	Other redevelopment	No.	Index (1961 =100)	No.	Index (1961 =100)	No.	No.	Per cent	No.	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
North West Region	439,970	41,410	564,038	27	863,404	41	2,124,144	511,787	24·9	536,931	25·9
Mersey	340,850	38,690	411,402	26	646,588	41	1,562,606	381,765	24·5	368,831	24·0
South East Lancashire	211,060	11,840	260,907	29	399,020	45	888,083	231,550	26·1	261,495	30·1
Manchester sub-region	108,690	7,790	114,911	29	184,426	46	397,733	93,183	24·1	92,418	24·0
Stockport sub-region	10,790	1,500	24,506	23	33,195	31	106,099	21,719	21·2	23,083	21·5
Oldham sub-region	34,410	1,330	31,088	36	48,344	56	86,231	35,731	42·8	40,303	47·7
Bolton sub-region	13,950	—	21,188	26	32,305	39	83,356	24,069	30·2	30,959	38·8
Altrincham sub-region	2,390	—	8,282	15	12,929	23	56,787	5,661	10·3	5,373	9·5
Bury sub-region	9,420	400	21,073	40	29,592	56	52,525	14,280	28·3	21,388	40·9
Rochdale sub-region	15,460	820	19,030	44	29,327	68	42,886	17,567	42·7	22,282	53·1
Leigh sub-region	10,780	—	6,099	22	9,164	33	28,122	6,882	24·9	9,071	33·2
Stalybridge sub-region	4,530	—	11,469	50	15,119	66	22,896	9,875	44·9	12,939	57·3
High Peak sub-region	640	—	3,261	26	4,619	37	12,448	2,643	22·4	3,679	31·6
Merseyside	101,240	23,610	107,033	22	176,358	37	482,587	93,004	19·3	50,059	10·4
North Merseyside sub-region	92,150	19,870	93,920	26	152,017	43	356,688	78,470	22·5	41,470	11·7
South Merseyside sub-region	9,090	3,741	13,113	10	24,341	19	125,899	14,534	11·9	8,589	6·8
Warrington-Wigan area	28,550	3,240	43,462	23	71,210	37	191,936	57,211	29·8	57,277	30·2
Wigan sub-region	20,400	2,400	13,777	25	22,945	40	121,166	40,261	34·0	40,033	33·3
Warrington sub-region	8,150	840	29,685	19	48,265	32	70,770	16,950	24·6	17,244	24·8

North Lancashire	88,720	2,160	104,318	24	160,427	37	434,277	104,144	24·0	137,375	32·9
Ribble	75,030	1,810	82,442	31	123,571	46	266,984	84,351	31·6	119,086	46·4
Blackburn sub-region	31,240	640	29,018	32	47,989	53	89,892	33,661	39·0	47,024	54·5
Preston sub-region	8,360	870	21,303	30	28,631	41	70,009	16,467	24·2	12,744	18·9
Burnley sub-region	17,930	300	15,280	24	25,446	40	64,181	19,998	32·5	38,915	63·5
Chorley sub-region	10,430	—	7,020	32	8,675	39	22,020	6,474	30·2	7,901	37·3
Rossendale sub-region	7,070	—	9,821	47	12,830	62	20,882	7,751	38·9	12,502	62·0
Lancaster-Fylde	12,670	200	14,533	11	20,806	16	132,633	11,388	8·6	8,798	6·9
Blackpool and Fylde sub-region	8,200	200	7,295	10	11,394	13	95,068	6,682	7·3	3,705	4·1
Lancaster sub-region	4,470	—	7,238	19	9,412	25	37,565	4,706	13·1	5,093	14·1
Furness	1,020	150	7,343	21	16,050	46	34,660	8,375	25·2	9,491	28·4
South Cheshire	10,400	560	48,318	38	56,389	44	127,261	25,662	20·2	30,725	25·1
Crewe sub-region	3,040	—	9,498	26	13,663	38	36,353	7,742	22·0	9,115	26·0
Chester sub-region	1,770	100	11,082	35	13,001	41	31,774	5,722	18·7	5,738	18·9
Macclesfield sub-region	4,260	—	19,897	60	19,909	60	33,348	8,053	25·2	10,182	31·5
Northwich sub-region	1,330	460	7,841	30	9,816	38	25,786	4,145	16·6	5,690	23·0

NOTE:
Comparable figures for England and Wales as a whole are:—column 5: 27, column 7: 36, column 10: 22·0, and column 12: 18·5.

Table 40 **Overcrowding**
North West Region 1961

Area	*Population in private households*	*Percentage of persons at more than 1½ persons per room*
(1)	(2)	(3)
Lancashire—A.C. with C.B's	4,983,835	5·6
Lancashire—Administrative County	2,143,158	3·9
Local authority areas with not less than 3·5 per cent of population living at more than 1½ persons per room		
Kirkhy U.D.	51,667	18·8
Huyton-with-Rohy U.D.	62,775	13·1
Liverpool C.B.	722,034	11·7
Aspull U.D.	6,740	8·6
Bootle C.B.	81,023	8·6
Whitworth U.D.	7,046	7·3
Ince-in-Makerfield U.D.	18,019	7·1
Longridge U.D.	4,686	7·1
Prescot U.D.	13,066	7·1
Whiston R.D.	40,994	6·9
Widnes M.B.	51,727	6·8
Bacup M.B.	17,275	6·7
St. Helens C.B.	106,393	6·5
Manchester C.B.	643,213	6·4
Salford C.B.	151,229	6·1
Kirkham U.D.	4,731	5·7
Wigan C.B.	77,548	5·7
Fylde R.D.	15,336	5·5
Middleton M.B.	56,155	5·5
Garstang R.D.	14,160	5·4
Warrington C.B.	74,337	5·3
Church U.D.	5,881	5.2
Haydock U.D.	11,951	5·1
Padiham U.D.	9,811	5·0
Preston C.B.	110,527	4·8
Upholland U.D.	7,096	4·8
Abram U.D.	6,004	4·4
Burnley C.B.	78,953	4·3
Oldham C.B.	113,266	4·3
Hindley U.D.	19,297	4·3
Little Lever U.D.	5,079	4·3
Croshy M.B.	58,296	4·1
Withnell U.D.	2,762	4·1
Rochdale C.B.	84,260	4·0
Dalton-in-Furness U.D.	10,296	4·0
Farnworth M.B.	26,513	4·0
Skelmersdale U.D.	6,271	4·0

Area	*Population in private households*	*Percentage of persons at more than 1½ persons per room*
(1)	(2)	(3)
Cheshire—A.C. with C.B's	1,338,425	3·6
Cheshire—Administrative County	901,194	2·9
Local authority areas with not less than 3·5 per cent of population living at more than 1½ persons per room		
Bolton C.B.	158,679	3·9
Fleetwood M.B.	26,261	3·8
Stretford M.B.	59,194	3·8
Barrow-in-Furness C.B.	63,717	3·7
Swinton and Pendlehury M.B.	39,951	3·7
Wardle U.D.	3,895	3·6
Droylsden U.D.	25,422	3·5
Mossley M.B.	9,768	3·5
Birkenhead C.B.	138,162	7·4
Winsford U.D.	12,731	7·1
Bucklow R.D.	16,662	5·7
Crewe M.B.	52,363	5·5
Northwich R.D.	39,006	5·4
Middlewich U.D.	6,776	5·2
Chester C.B.	57,243	4·8
Ellesmere Port M.B.	43,920	4·6
Tarvin R.D.	14,399	4·6
Stalybridge M.B.	21,860	4·5
Northwich U.D.	19,254	4·3
Wallasey C.B.	101,769	4·0
Nantwich R.D.	27,511	3·8
Derhyshire (part)		
Local authority area with not less than 3·5 per cent of population living at more than 1½ persons per room		
Glossop M.B.	17,190	4·6

Table 41 The Housing Problem
North West Region 1964-81

Item	*All areas*	*South East Lancs.*	*Mersey-side*	*Warring-ton —Wigan area*	*Ribble*	*Lancaster —Fylde*	*Furness*	*South Cheshire*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Demand for additional dwellings								
1. Shortage 1964	82,120	26,910	40,190	7,330	2,600	1,900	970	2,220
2. Natural increase in number of households assuming no migration	281,590	105,940	90,950	36,250	19,030	7,600	3,520	18,300
3. Effect of currently proposed planned overspill schemes	0	−45,100	−29,210	+54,010	+15,000	0	0	+5,300
4. Total (items 1, 2 and 3)	363,710	87,750	101,930	97,590	36,630	9,500	4,490	25,820
5. Effect of continuation of 1956-64 trends of voluntary migration	−54,000	−42,400	−36,500	−9,000	−7,000	+32,700	−1,600	+9,800
6. Total (items 4 and 5)	309,710	45,350	65,430	88,590	29,630	42,200	2,890	35,620
7. Slum clearance needs								
(*a*) based on local estimates (see Table 39, col. 2)	439,970	211,060	101,240	28,550	75,030	12,670	1,020	10,400
(*b*) based on number of dwellings with R.V. £30 or less (see Table 39, col. 11)	536,931	261,495	50,059	57,277	119,086	8,798	9,491	30,725
8. Needs arising from other redevelopment (see Table 39, col. 3)	41,410	11,840	23,610	3,240	1,810	200	150	560
9. Total (*a*) (items 7a and 8)	481,380	222,900	124,850	31,790	76,840	12,870	1,170	10,960
(*b*) (items 7b and 8)	578,341	273,335	73,669	60,517	120,896	8,998	9,641	31,285
10. All demands assuming								
(*a*) continuation of voluntary migration (items 6 and 9a)	791,090	268,250	190,280	120,380	106,470	55,070	4,060	46,580
(*b*) elimination of voluntary migration (items 4 and 9a)	845,090	310,650	226,780	129,380	113,470	22,370	5,660	36,780
(*c*) elimination of voluntary migration and slum clearance as at item 7b (items 4 and 9b)	942,051	361,085	175,599	158,107	157,526	18,498	14,131	57,105
Sites for new dwellings								
11. New areas		153,980	93,600	124,170				52,200
12. Redevelopment areas	869,940	111,570	67,320	14,290	194,890	48,390	5,180	4,350
13. Total (items 11 and 12)		265,550	160,920	138,460				56,550
14. Surplus (+) or deficiency (−) of sites against demand assuming								
(*a*) continuation of voluntary migration (item 13—item 10a)	+78,850	−2,700	−29,360	+18,080	+88,420	−6,680	+1,120	+9,970
(*b*) elimination of voluntary migration (item 13—item 10b)	+24,850	−45,100	−65,860	+9,080	+81,420	+26,020	−480	+19,770

Public building rates: average number of dwellings per annum								
15. Current rate (local authority building mid-1961—mid-1964)	14,530	6,674	3,952	1,541	1,102	195	110	956
16. Rate called for over the period to deal with (a) slum clearance (as at item 7a)	25,881	12,415	5,955	1,680	4,413	745	60	612
(b) all clearance (as at item 9a) and 25% of other demands assuming continuation of voluntary migration (25% of item 6)	32,871	13,778	8,306	3,173	4,956	1,378	111	1,169
(c) all clearance (as at item 9a) and 25% of other demands assuming elimination of voluntary migration (25% of item 4)	33,665	14,402	8,843	3,305	5,059	897	135	1,024
(d) all clearance (as at item 9b) and 25% of other demands assuming elimination of voluntary migration (25% of item 4)	39,368	17,369	5,832	4,995	7,650	669	633	2,220

NOTE:

Building by New Town corporations on the scale allowed for at item 3 would contribute 3,118 dwellings per annum to the public building rates postulated at item 16.

Tahle 42

EXPLANATORY NOTE

Method of calculating fnture increases in households: assumptions regarding planned overspill.

Introduction

1. Numbers of households at 1981 for each sub-division of the region have been calculated from the projections of natural change.
2. The effects which those currently proposed planned overspill schemes involving movement of population across sub-divisional boundaries will have on housing demand have then been allowed for on the basis that these schemes will be occupied at an average of 3·5 persons per dwelling.
3. Alternative hypotheses are introduced concerning voluntary migration:—
   (a) net change for each sub-division 1964-81 will follow the 1956-64 trend and will be associated with an average household size of 2·5 persons;
   (b) the sub-divisions will experience no net change in the period 1964-81.

Household projections

4. Estimates of the numher of households in 1981 have been obtained by calculating the number of heads of households to be expected in the 1981 projected population (see Chapter 1): the proportions of the population within certain age-sex-marital condition groups forming heads of households at the 1951 Census have heen multiplied hy the estimated total numbers in those groups at 1981.

5. The estimates of numhers of households have heen translated into estimates of numhers requiring separate accommodation on the basis that
   (a) all existing private households should be separately housed except that only 1 in 4 of single person households sharing accommodation will require separate accommodation;
   (b) all married couples sharing accommodation should be separately housed.

Planned overspill

5. The following assumptions which have been made regarding planned overspill schemes are not intended to pre-judge any decisions that have still to he taken on them:—

Overspill scheme	*No. of households to be accommodated from*		
	All areas	*South East Lancs.*	*Merseyside*
(1)	*(2)*	*(3)*	*(4)*
All schemes	74,330	45,100	29,230
New Towns	53,000	28,000	25,000
Runcorn	11,000	—	11,000
Skelmersdale	14,000	—	14,000
Warrington	13,000	13,000	—
Leyland-Chorley	15,000	15,000	—
Town Development Act schemes	21,330	17,100	4,230
Westhoughton	12,300	12,300	—
Widnes	3,730	—	3,730
Winsford	500	—	500
Crewe, Macclesfield and Winsford	4,800	4,800	—

NOTES:

1. The figures for Leyland-Chorley are based on experience in earlier New Towns and on large scale building commencing 1972-73. It is possible that a better performance may be achieved with new techniques; and that the new town may also take overspill from Merseyside.
2. The figures for Crewe, Macclesfield and Winsford are on the assumption that half the dwellings provided will be available for overspill.

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NORTH WEST ENGLAND
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